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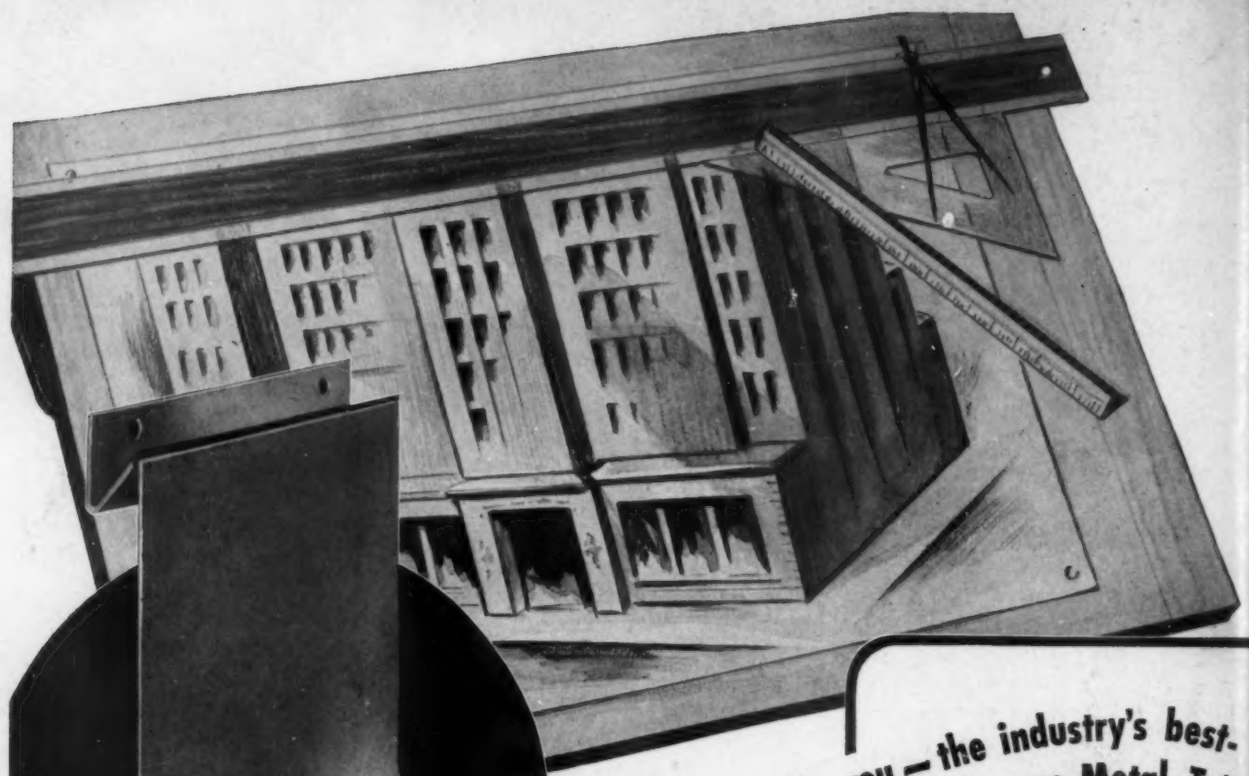

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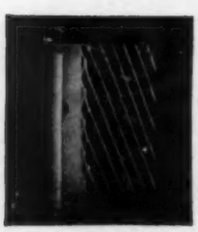

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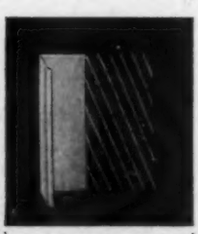

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MARCH 1946

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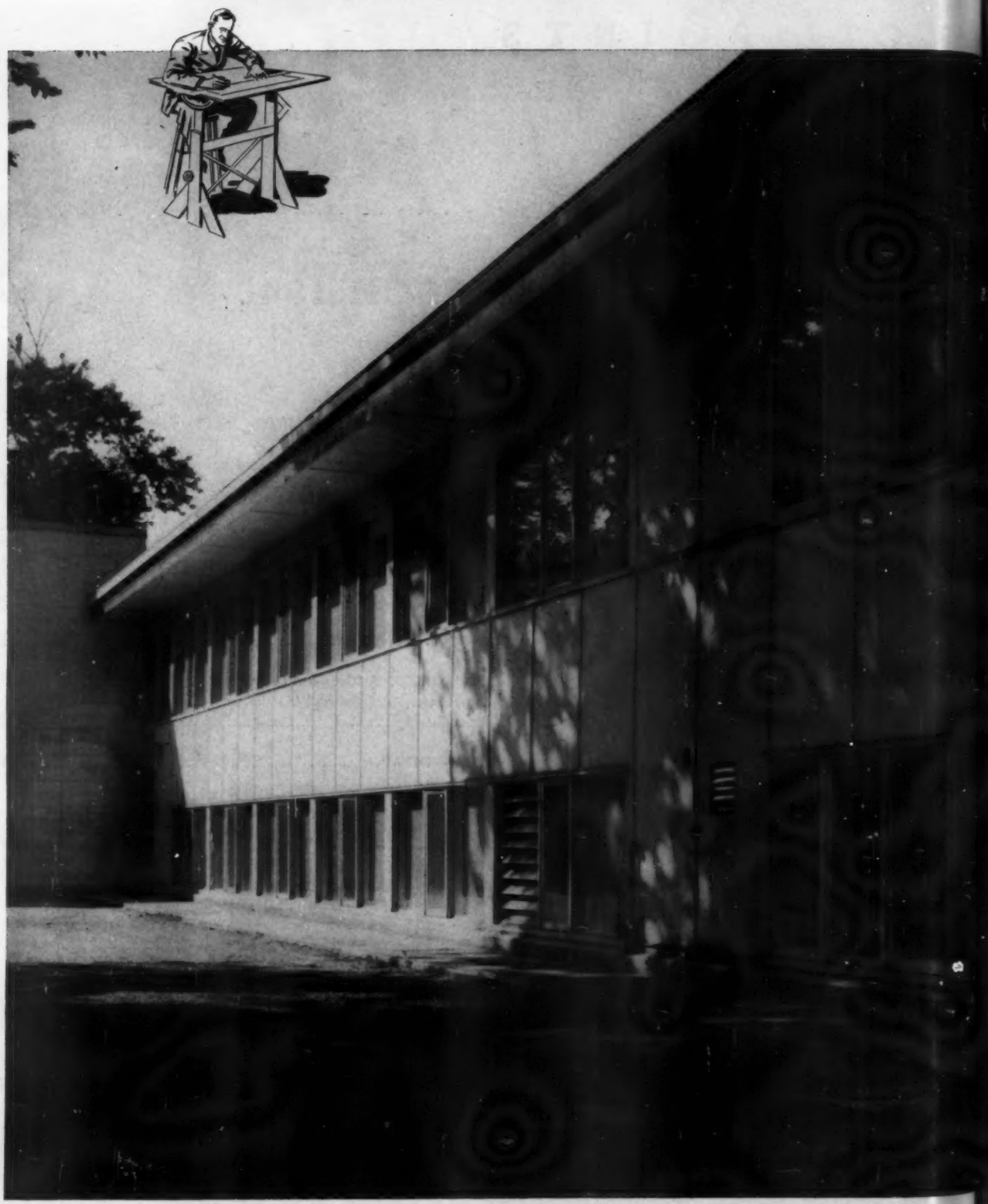

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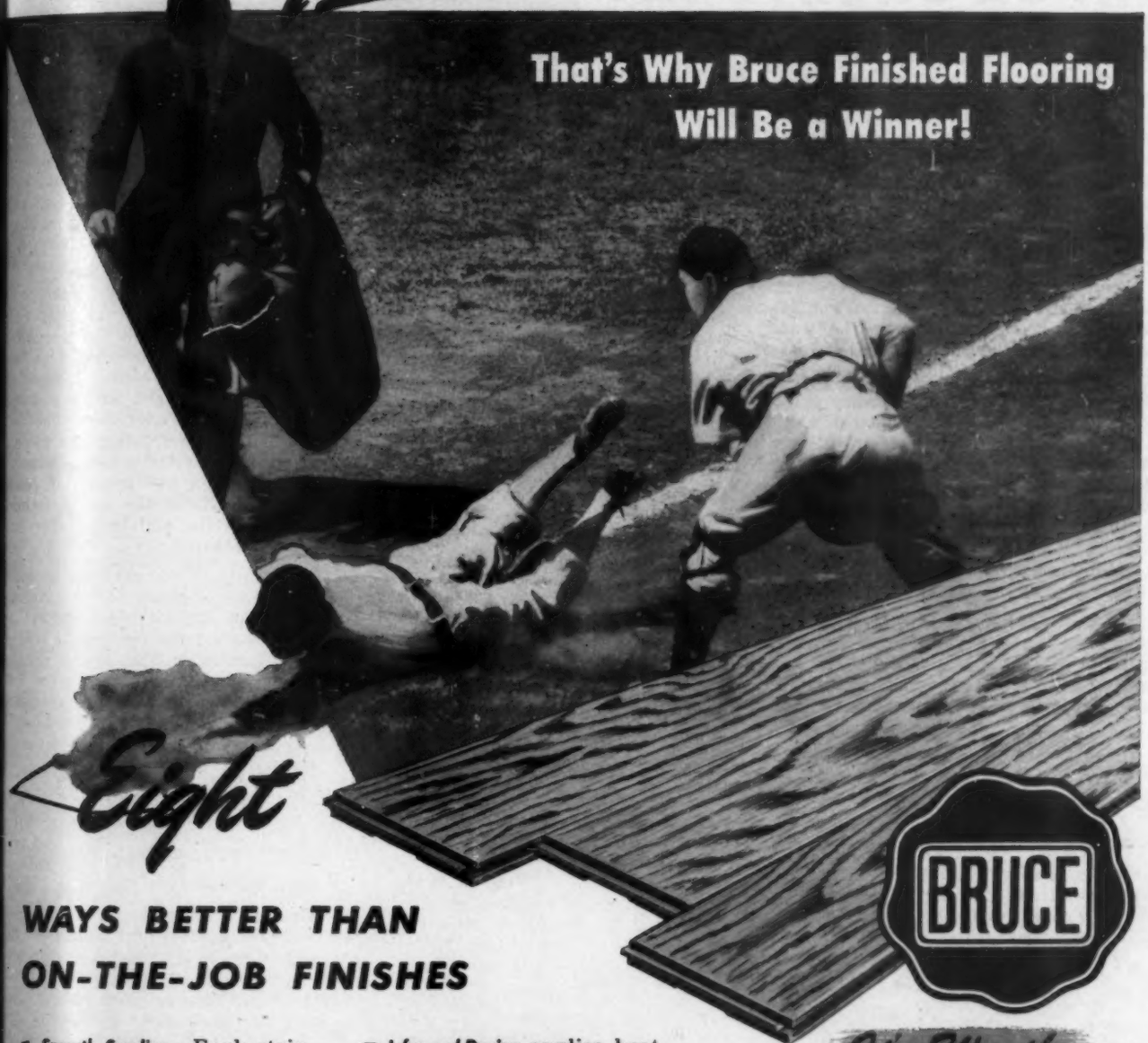

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VIEWS

THE PICTURES WERE FINE

Dear Editor:

The lead article of your January issue, "Pearl Harbor to Nagasaki," no doubt presents a persuasive argument for modern design to the average layman, that is, to the reader who may never before have given any serious thought to architecture. But we are told in the prefatory note by Kenneth Reid that this article is addressed to architects. As architects, even those of us who have spent several years away from the profession would have been more interested in specific and technical information of what has been built during the war years than in the old and settled controversy between modern and eclectic.

Even Mr. Creighton's elementary article adds further evidence that this controversy has resolved itself in strong approval of modern architecture. PROGRESSIVE ARCHITECTURE has cast its lot with the modern movement, and if it is intended for a professional audience, then why don't the editors make the logical assumption that they are addressing modern architects?

Nevertheless, I appreciate the interest you show in the younger architects, both in addressing your article to us and in asking for our reactions. As in all good primers, the pictures were fine.

ARTHUR R. MYHRUM
Cambridge, Massachusetts

HOME SWEET — WHERE?

Dear Editor:

After spending two and a half years moving through North Africa, Sicily, Italy, France, Germany, England, and Scotland—there's no place like home!

I've just glanced through your January issue. Since "I" went away there has been a "change." There definitely has been, Mr. Reid—a change for the worse. There are no homes—for far too many of us. Somewhere, someone has failed. There has been no progress, particularly in this field. There will be no progress until every veteran has a place he calls home.

I like Thomas Creighton's summation—"For Leadership in Democratic Planning." We, as architects, must begin to replace politicians and handshakers in the councils of neighborhoods, cities, and states, and other government units where planning and designing are the most important factors for decent living. It's really up to the architects themselves. So let's go to work and fight for this progress — as soon as "We" have our feet on the ground, we'll join this fight too, only this time with a pen and not a sword.

JACK SILBERMAN
New York, N. Y.

NOT A STYLE

Dear Editor:

I have read with interest the January 1946 issue of PROGRESSIVE ARCHITECTURE. I have not had an opportunity to see many architectural magazines in the past three and a half years and Mr. Creighton's review served admirably to bridge the gap.

I was especially interested that he thought many architects in this country had gained a better idea of what constitutes progressive architecture. Not much progressive architecture will be possible until we understand that it is not a style but the result of a way of thinking that permits us to draw logical conclusions from fundamental facts.

I think the review of progress in modular design also indicates a step in the right direction. Architects should take the leadership in coordinating the building industry, and attempt to eliminate waste. Much of the chaotic condition that we find today within the industry is the result of indifference on the part of the architects.

LT. FRANK CRAIG, A.U.S.
Washington, D. C.

RIGHT ON THE BEAM

Dear Editor:

I have read the article, "Pearl Harbor to Nagasaki," and congratulate PROGRESSIVE ARCHITECTURE on the pertinent idea. Before returning to practice I was apprehensive as to what I had missed in the past three and a half years. Your January issue is "right on the beam."

FREDERICK E. SLOAN
Golf, Illinois

FOR THE RECORD

Dear Editor:

The January issue of PROGRESSIVE ARCHITECTURE is the finest review on recent American architecture I've ever seen. I appreciate particularly the broadmindedness which governed the selection and composition of material. So it happens that a single magazine number can have a greater value than some of the books which have been presenting similar surveys but suffered from one-sidedness in favor of the most advertised authors.

I think every one or two years one issue should be devoted to such a review, putting on record the best work done in that period, including lesser known buildings. In time, those issues would give a comprehensive chronicle of the history of American architecture with all its trends among the modern architects.

H. WAECHTER
Brighton, Massachusetts

TIME FOR CAREFUL STUDY

Dear Editor:

PROGRESSIVE ARCHITECTURE in its uary issue did a beautiful and ex ly timely job in examining Am building's wartime record. This year story of accomplishment sho studied carefully before we becom pletely submerged in our new p *normalcy*. One hopes its lesson its results will not be vitiated by a return to old habit patterns that both hurt the industry and the titioner, and made building one backward sectors of our economy stead, this period should be cons an indispensable basis for a matur responsible handling of the huge ning and housing problem ahead

Your survey of the war years pr dramatic evidence of the shortsi ness of much of the profession saw impending professional extin in 1941. As you clearly prove, tecture was not put out to pastur the duration. Under the impact total social effort during the war it acquired instead a new economy scope marked by integrated pla and flexibility in the use of tech and materials, and by greater p sional maturity.

Your method of analysis provid framework of clearly defined stand applicable beyond this specific to any considered critique of cont rary building. The three maga were an excellent medium for f ing these trends, and the subhea provide a clearly defined yardstick an excellent augury for 1946 for RESSIVE ARCHITECTURE readers.

HERMANN H. FIELD,
New York,

WHAT ABOUT CODES?

Dear Editor:

Thomas Creighton's report of re into the architectural magazines war years is a useful and worth resumé. It is encouraging to lear there has been as much progress specific illustrations indicate.

Progress toward the acceptance general public of new plan par the frank use of materials, and over-all planning abilities of arch is all to the good. Yet, as a ret serviceman, finding anew his pla the profession, I would have been encouraged had he been able to progress in other phases of the struction industry as well.

I had hoped that, during the wa chitects here at home had incite vision of antiquated building co urban real estate holdings and tion, and of the relations of labor in the construction industry. Per the magazines serving the profe can guide its progress toward th lution of the remaining fetters progressive American architecture.

JOHN C. Sr
New York,

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(Continued on page 12)

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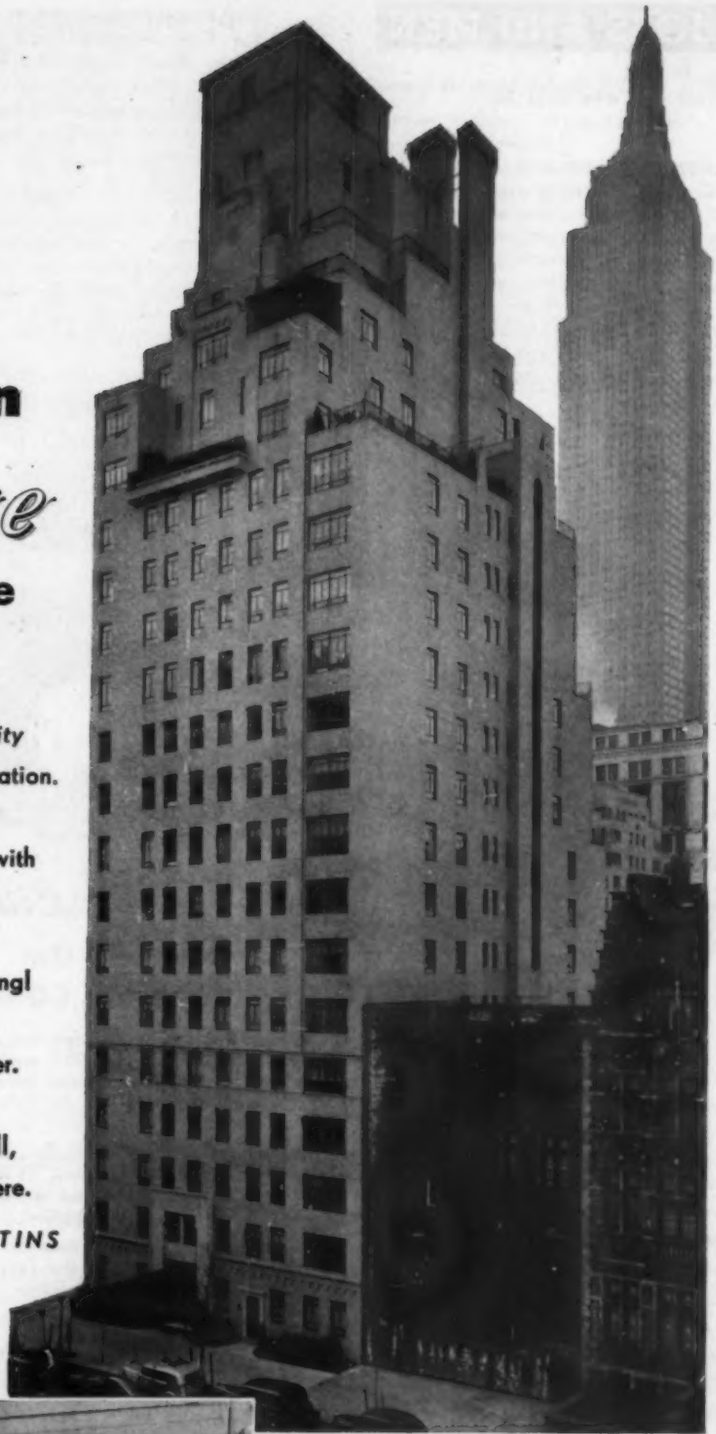

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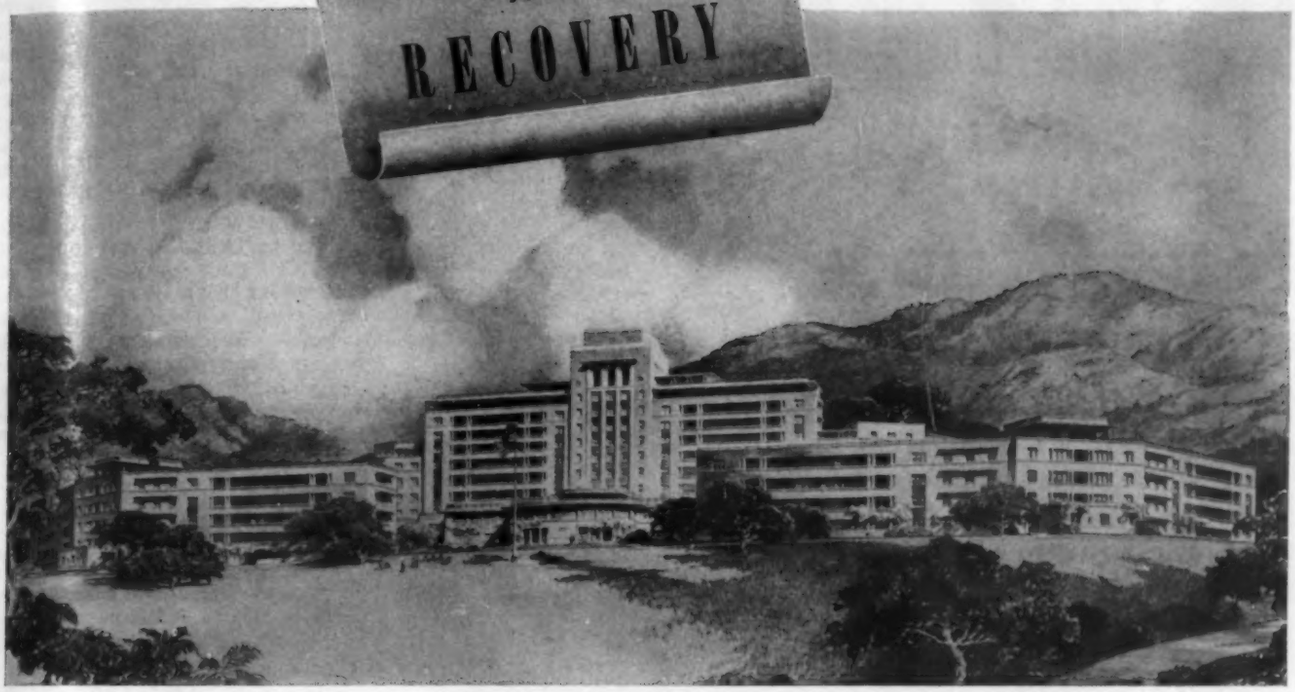

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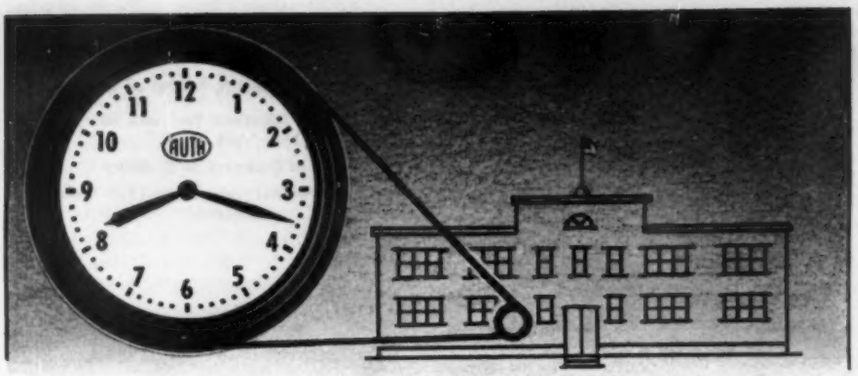

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JOBS AND MEN

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NOTICES

CARROLL & DAEUBLE, Architects, announce the opening of offices in Suite 355-57-59 First National Bank Bldg., El Paso, Texas.

RAYMOND A. COOLIDGE, Architect, announces the opening of his office at 640 New England Bldg., Topeka, Kansas, after three and a half years with the War Department.

WILLIAM DAVIES EVE and HENRY LOWREY STULB announce the formation of the firm EVE & STULB, Architects, Masonic Bldg., Augusta, Ga.

HERMAN M. SOHN and MARTYN N. WESTON announce merging their architectural practice under the firm name of SOHN & WESTON, Architects, 44 Court St., Brooklyn 2, N. Y.

W. F. RUCK, Architect, announces the reopening of his office at 940 S. Figueroa St., Los Angeles 15, Calif.

MAX SIEGEL, Engineer, and HARRY P. GREEN, Architect, are now associated in professional practice as SIEGEL & GREEN, 1841 Broadway, New York 23, N. Y.

JAMES H. MACNAUGHTON announces his resignation from the New England Division Corps of Engineers of the War Department and is resuming the practice of architecture and engineering at 69 Newbury St., Boston, Mass.

ADOLPH STUDLY, 40 E. 49th St., New York, N. Y., having been honorably discharged from the Army, has resumed his practice in all branches of commercial photography.

THE CITIZENS' HOUSING COUNCIL of New York, Inc., is now located at Willkie Memorial Bldg., 20 W. 40th St., New York 18, N. Y.

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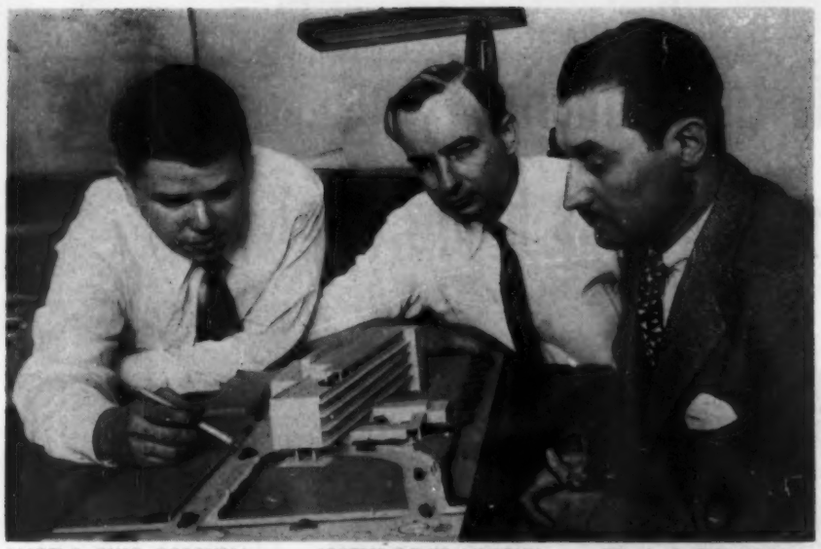
THIS MONTH



ANGELO GHIO CORRUBIA JOSEPH DENIS MURPHY DR. A. J. SIGNORELLI

RITA DAVIDSON WILLIAM SMULL

NEXT MONTH

● Our April issue will present the results of two important competitions: the Smith College Dormitory Competition, sponsored by PROGRESSIVE ARCHITECTURE and the Museum of Modern Art, and the PROGRESSIVE ARCHITECTURE-Rich's, Inc. Competition for the Design of a Realistic House for Georgia. The reports of the respective Juries will be published with the winning designs. In the case of the dormitory competition, the three prize-winning designs will be shown in detail. From the small house competition, all of the thirty drawings awarded prizes and mention will be reproduced.

Planning of Faith Hospital, fea in this issue, is by **JOSEPH DE MURPHY**, architect, and **ANG GHIO CORRUBIA**, associate, of Louis, Missouri, who are shown (l with the director of the hospital, **A. J. SIGNORELLI.** The architect conducted a general practice in Louis since 1935, and also has ta architectural design and city plann at Washington University, where h associate professor of architecture. received his education at Rocki College, M. I. T., Fontainebleau Sc of Fine Arts, and L'Ecole des Be Arts, Paris—the last two as winn of a Fontainebleau Scholarship in 1 and the Paris Prize in 1935. Corru whose early architectural training in the office of his father, the Angelo B. M. Corrubia, architect, of Louis, received his degree in archi ture from Washington University 1943. He then worked for the Ca Wright Corporation until he beca associated with Murphy in the de of Faith Hospital.

The story of Bryn Gweled, a Penn vania community of houses in contemporary manner, was brought us by **RITA DAVIDSON** and **W LIAM SMULL**, already known to readers for their monthly review umn on planning books and pamph Their work has always been colla rative as they were married in 1 and started their studies in archi ture, engineering, planning, econom and social sciences the following y Smull, in addition to work as a dra man for OWI and for Fellheimer Wagner, architects, New York, attended Columbia College, Cath University, Harvard Graduate Sch of Design as a scholarship stud M. I. T., and American University. wife has studied at New York Uni sity, where she received her B. A. Economics, at Columbia Univers where she will receive her M. A. Public Law and Government; and presently enrolled for a Ph. D. in gional Planning at Harvard, as far we know the only woman and on scientist working for that degree. addition to her reviews for polit science and architectural publicati Miss Davidson has worked as an ec omist and analyst with public agen and has instructed in government public administration at New Y University, Wheaton College, Brooklyn College.

The account of basic planning and of land by this cooperative comm

(Continued on page 22)

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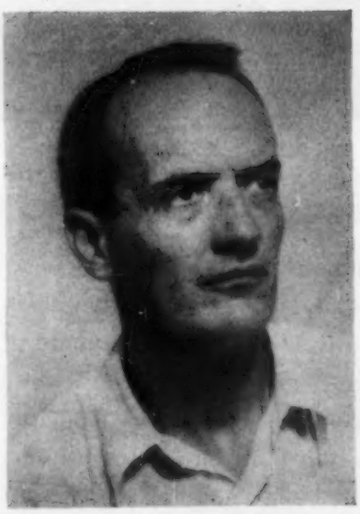
reveals that a number of architects have had a hand in the development of the village to date. One who has done a good many of the houses shown in this issue is **ROBERT F. BISHOP**, who tells us he "was spared a formal architectural education." After graduating with honors from Swarthmore College, he set about learning architecture, first working a year or so with a traditionalist, and then hastening to Taliesin to become an apprentice of Frank Lloyd Wright for three years. Now a registered architect experienced in house design, he holds to his "original conviction of Wright's significance . . . . only strengthened." The war years he spent in industrial design, but found time to work with the people of Bryn Gweled. His picture may be found in the group shown on page 65.



PAUL BEIDLER

Another architect of Bryn Gweled, whose respect for Wright has never abated since he studied at Taliesin, is **PAUL BEIDLER**, architect of six of the twelve houses at present built at Bryn Gweled. From his branch office in Sarasota, Florida, this (now) New York architect wrote to us about the Bryn Gweled houses: "Perhaps the yearning for country homes offers the last frontier for the individually designed one-family house. The requirements of city dwellers will have to be fitted into the prefabricated house or the group housing unit, but there is no need and little possibility of mass uniformity in meeting the problems confronting the rural land holder. His two to twenty acres give him the privilege of choosing a habitation molded to fit his own peculiarities and interests.

"Working out the solution to the multiple problems which beset the country dweller has always been a major interest of mine. In conferences I steered the subject away from esthetics to more practical issues. In their eagerness to accept workable ideas to solve the knotty problems of the rural householder, my clients were usually persuaded to discard any preconception of style. Consequently, I was able to work out a number of simple and genuine forms. In this I was ably assisted by **WILLIAM LUNT, CORNELIUS BOGERT,** and **WILLIAM COYLE,** all of whom brought with them a devotion to their work."

He also explained that "sophistocated forms were avoided as being *architectural* and, although I am an architect, I think that *architecture* is something to be avoided in building." His wide experience has included archeological work in the Near East, following his graduation from the University of Pennsylvania. During vacations between expeditions he worked in Europe with Le Corbusier and Jan Duiker of Amsterdam. He also worked on the Coast and in Honolulu before returning to Pennsylvania to practice architecture.

WALTER T. ROBINSON

It happens that a third architect without formal training, **WALTER THOMAS ROBINSON,** has collaborated on the Bryn Gweled project. He acquired the equivalent of the usual college work through associations in architectural offices and the practical experience of eighteen years' work with well-known architects and engineers—supplemented by evening and home study courses. After some years as chief draftsman for W. R. Morton Keast, architect of public buildings and housing developments, Robinson was employed on city and state planning projects, and since April, 1944, has been land planner (neighborhoods) with the Philadelphia City Planning Commission.

Photographs of the Bryn Gweled h
and of the authors of the Bryn G
story (page 64) were made by Ph
LIS ANN DEARBORN, whose w
is known to our readers, as she
pictured many of the most impor
buildings and projects we have
tured during the past three y
(Her own picture here was made
Nancy Clemens.) She is a nativ
Seattle, where she attended sch
then graduated with honors from
University of Washington. She
encouraged by her father who has
the "kind backer of all enterpr
to study photography at the Cla
H. White School in New York. On
return to Seattle she started with
traiture and began a long associ
with the Seattle Repertory Playh
where she served diligently as ph

PHYLLIS A. DEARBORN

rapher and backstage worker. At
time she taught photography,
studied some more at Cornish Sc
She had a good deal of work, but
ments, "most of it just kept the
tographer up late." For a time,
Pearl Harbor, she was busy as
photographer for Associated Shipb
ers, Seattle, then had an opportu
to come to New York. It is now
ambition to "do good architectural
tography for good architects, at a
ing wage, with enough time left
to do some creative projects about
Northwest, the American Indian in
N. W., people, and architecture."

The sculptor represented in this
is **HARRY MARINSKY,** who
scholarships and awards in the A
Island School of Design and Pratt
stitute, and admits that he was a
thing of a "greasy grind" but p
out that he "didn't end up wra

(Continued on page 24)

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THIS MONTH

(Continued from page 22)

HARRY MARIINSKY

packages in Macy's, which ought to upset some statistics that get bandied about." He has been interested in sculpture as long as he can remember, and worked at it busily from his childhood in Providence, "happily unaware" that he was an artist. At Pratt Institute he decided to make a living with commercial work so that he could afford to devote his "other time" to such superior undertakings as the work shown in this issue. It is significant that he values the contacts and knowledge of people gained through magazine layouts, book illustrations, and commercial art—the last so good that he was awarded a Medal for Merit at last year's Art Directors' show. He also has exhibited his water colors, oils, and sculpture. Of his indictment of war, shown on pages 62 and 63, he tells us:

"When I conceived this sculpture it wasn't with any thought of a war memorial. I have seen too many memorials that said nothing but that it was 'bad' sculpture and that men sometimes wore uniforms. As for 'name listing' memorials, they seem but a shoddy way for conscience-salving. My only thought and hope when I produced this work was that it would or could do something to bring home more forcefully and decisively that war has *no* glamour, is horrible and frightful, destructive and negative, and that we *have got* the positive answer—and must use it."

The Mobilar system of construction described in this issue was devised eight years ago by KONRAD WACHSMANN while he was practicing architecture in Paris—after extensive design and structural experience in Germany, Italy, Spain, and France. He worked in his

(Continued on page 26)

ZONOLITE CONCRETE USED FOR 130,000 SQ. FT. OF ROOF ON NEW NAVY OFFICE BLDG.

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Insulating Concrete Corp., Washington, D.C., Sub-Contractor

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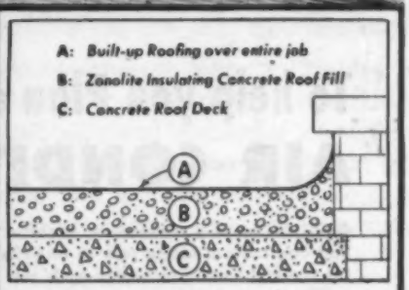

DETAILS OF TYPICAL ZONOLITE ROOF CONSTRUCTION

While the Navy Building, shown above, has Zonolite Concrete laid over Steel-tex, many types of buildings have Zonolite Roofs constructed as in diagram.

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THIS MONTH

(Continued from page 24)

youth in Germany as a cabinetmaker, carpenter, and bricklayer. He gained his architectural education working in offices, then as a Master Student under Poelzig at the Berlin Academy of Art. His familiarity with prefabrication and standardization of structural parts dates from three years spent as chief architect for Christoph & Unmack, then world's largest prefabricators of houses, camps, hospitals, barracks, etc. Going into practice for himself, he continued his modular experiments and designed many structures, but his work was in several instances halted by outbreak of wars. After he conceived the Mobilar system, its development was shelved until he had served in the French Army against Germany, then, after demobilization, managed to get to the United States. He was first associated with Walter Gropius—with whom he developed the "packaged building," described in the April 1943 issue of *The New Pencil Points*. This standardized system now is entering production at the General Panel Corp., which he founded in 1942, and of which he became president this year. Meantime, he formed a partnership with Albert and Charles Wohlstetter to perfect his Mobilar structures.

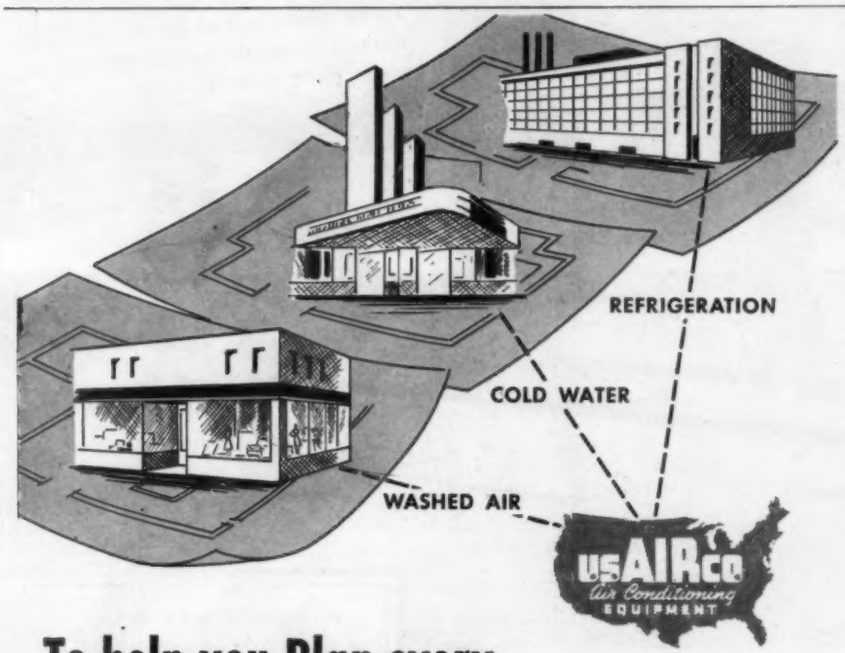
KONRAD WACHSMANN

An exhibition of the Mobilar syste was on view last month at the Muse of Modern Art in New York, where half-inch scale model of an airpla hangar of this revolutionary type construction was dramatically d played. There were also drawings e plaining the details of this syste

Names of the winners of the PROGRESSI ARCHITECTURE-Rich's, Inc. Architectu Competition—A Realistic House for a Fam in Georgia—were announced just as we w to press this month.

First prize went to Hugh Stubbins, J Cambridge, Massachusetts, who a won an honorable mention. Other pri winners were: Second prize—Wats Balharrie, Ottawa, Canada; Third pri —Harold Calhoun, Houston, Texa Fourth prize—Walter Preston Hick Birmingham, Michigan, and Raymo Weber, Huntington Woods, Michiga Special Georgia Prize and honorab mention—William Ewart Willner, A lanta, Georgia.

Honorable mention also went to Wilmer Heery, Athens, Georgia; Jose Salerno, New York, New York; Di Barry, Cambridge, Massachusetts; (Lyle Reynolds Wheeler, West Los A geles, California; James W. Lars Portsmouth, Virginia; Barbara a William Pfouts, Pittsburgh, Pen sylvania; John Hironimus, Jacks Heights, Long Island, New Yor Phyllis Hoffzimer, Brooklyn, New Yor J. Floyd Yewell, New York, New Yor Lt. David M. Leaf, Ft. Belvoir, Vi ginia; Mrs. Jean W. Deyoe, Manhatta Kansas, and John F. Granstedt, Kans City, Missouri; Richard R. Rhod Balboa Heights, Canal Zone; Arth O. Davis, Jr., Atlanta, Georgia; I. M Pei, Cambridge, Massachusetts; Carr H. Manny, Jr., Michigan City, Indian Bill Atkinson, Bloomfield Hills, Mich gan; Robert L. Albert, Arlington, Vi ginia; George Matsumoto and G Obata, Bloomfield Hills, Michiga David G. Murray, Tulsa, Oklahom Roland K. Kuechle, Oakland, Calif nia; Joseph Elliott Phillips, Jr., A lanta, Georgia; Charles D. Wil Chicago, Illinois.



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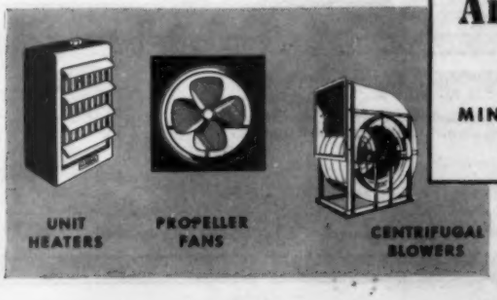

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A HOME FOR THE UNO

Now that the question of a permanent home for the United Nations Organization has burst, literally in our own back yard (we live only a few miles from the favored site), we are more than ever conscious of the urgency of having the establishment properly designed by the most competent architect (or architects) that can be found in the world.

Surely, here is the most challenging architectural opportunity in all modern history. We cannot conceive of any disagreement on the point that the scheme for the United Nations Organization headquarters, both in general plan and in detail, must be the absolute best that the greatest architectural talents of our times can produce. But how can this laudable objective be attained?

To us it seems that the only practical and logical answer is an international architectural competition such as has already been talked of privately within A.I.A. councils and is now publicly proposed by the Museum of Modern Art in New York.

Even though the UNO establishment is to be in the United States, we must recognize that every one of the United Nations has a stake in the success of the organization and an interest in the determination of its physical environment. Also, since architecture is in a sense an international language, we should be willing to acknowledge the presence of a number of great architects in other countries, and we should be eager to set up the best we have to offer to be judged against the best that they can devise.

Manifestly, the holding of a competition presents many difficulties, not the least of which is to determine upon a competent jury to decide the results and a professional adviser and technical committee of sufficient caliber to write an adequate program. We believe, however, that these difficulties can be surmounted and we feel that the advantages of the competition method are so great as to warrant the attempt to surmount them.

One idea that has been proposed is to ask each Nation to designate a limited number of its top-flight architects to enter a single-stage international competition. How to pick its entrants would be left to each country to determine for itself. They could be chosen by national competition or elected by their fellow architects or selected by the heads of governments—whatever was considered appropriate. Then, in the final world-wide competition, every country would be on an equal footing and the total number of designs to be considered by the jury would be held to a reasonable number that would not be overpowering.

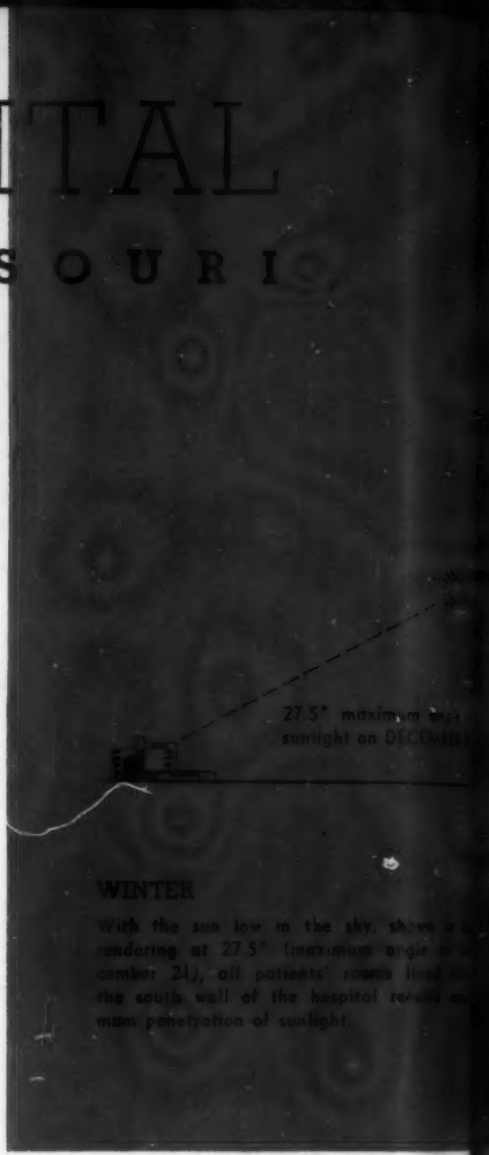
There are, undoubtedly, a variety of ways in which a competition could be set up, and since the question is of great moment to a large number of architects, we invite as many suggestions as our readers may be moved to send us. What do **you** think should be done?

While we wait for your recommendations, we are seeking active support for the competition idea among the leading professional journals of the world and among the professional bodies in every country. We think it is the only fair solution.

Kenneth Reid

FAITH HOSPITAL

ST. LOUIS, MISSOURI



An Outstanding Example of Sound Basic Planning

The Faith Hospital project, as presented here, is a highly rational instance of over-all organization of a health-care facility, rather than a study of specific details. Sufficient space for the various departments, based on present day hospital-planning standards, has been allocated. The precise breakdown of these functional areas, however, has yet to go forward. This gives us and the reader a unique opportunity for a clear view of fundamentals, without being confused by minutiae. No hospital—no building of any type, indeed—can be any better than its basic organization permits. And, in our opinion, the preliminary planning of Faith Hospital; the interrelationship of departments, both horizontally and vertically; and the intelligent application of contemporary materials, techniques, and structural systems constitute a notable achievement.

JOSEPH DENIS MURPHY, Architect

ANGELO G. CORRUBIA, Associate

DR. A. J. SIGNORELLI, Medical Director

AIM

The invariable criterion used in the hospital design to date is the well-being of the individual patient. This humanitarian point of departure is based on Dr. Signorelli's conviction that the patient's well-being is the most important factor in his recovery. In the preliminary program, the ideal is summarized by the statement: "All functions of the hospital plan should be so related that each individual patient receives the maximum care, service, comfort and tranquility with the minimum of friction, duplication, and expense."

The architectural expression of this ideal, as shown in the color reproductions and subsequent details and plans, includes the southern orientation of patients' rooms, the resultant "solar wall" of the structure, and the relegation of service and operating rooms to the north side of the building, separated from the patients' rooms by both corridors and acoustical treatment.

BACKGROUND

The new Faith Hospital (125 beds; 40 bassinets) is a product of a proposed expansion program. The old 40-bed hospital, taken over in 1937 by Dr. Signorelli (the Medical Director) and a group of doctors, has not only weathered a depression and the war, but in its constantly expanding work, it has proved the need for an enlarged and thoroughly up-to-date institution. Like the older hospital, the new one is to be non-profit, non-sectarian, and operated by the more than 100 physicians and surgeons on its staff.

A two-acre rectangular site, with 165-foot frontage facing west on an important artery of the city and a depth of 542 feet, has already been purchased. The land was selected for its central location with respect to both the city of St. Louis and St. Louis County. Bordering the property on the south is an orphanage, a large, park-like tract which promises to remain in this pleasant condition permanently.

PROGRESSIVE MEDICINE—PROGRESSIVE ARCHITECTURE

Dr. Signorelli's thinking on the relationship between medical advance and modern hospital planning served as a guide to the architects of the new Faith Hospital, and it could with equal profit influence any hospital-design problem.

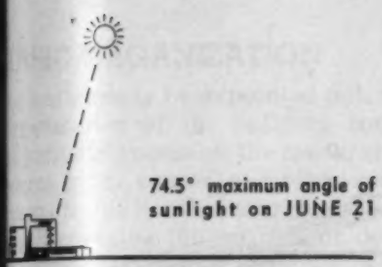
For hospital patients to gain the full advantage of advanced techniques of medicine, surgery, and science, Dr. Signorelli contends, use must be made of new techniques in the planning and construction of the hospitals themselves. In fact, he states that, in the past few years, the increased joining of modern hospital efficiency with contemporary treatment methods "has reduced the average length of stay in hospitals by more than one-half." He predicts that in the years ahead, in order to limit or reduce the rising cost of hospital care and to meet the demand for the more advanced curative techniques made possible by ever-improving methods of diagnosis and treatment, "many hospitals will have to replace their present deteriorating structures and equipment."

A survey by the American Hospital Association finds that approximately 80 percent of the hospitals in this country have an average daily census of less than 100 patients. Dr. Signorelli, therefore, argues that administrators and architects should concentrate on better solutions for hospitals of this size.

Editorial Note: A companion fact shows that in this 80 percent of hospital structures is contained only 2[illegible] to 30 percent of the total hospital beds. From this, one should judge, the trend has been toward fewer, larger hospitals where more costly services could be justified. Though, ideally, this might eventually solve the big city hospital problem, in more rural areas—and even still, in large cities, as witness the Faith Hospital project for St. Louis—there is need for the efficient smaller unit. The Faith Hospital plans indicate what is probably the greatest hope of solution—a design that concentrates on essentials and eliminates the "gold plate;" a plan that will help shorten the patient's hospital stay.

FAITH HOSPITAL

JOSEPH DENIS MURPHY, Architect
ANGELO G. CORRUBIA, Associate



SUMMER

When the sun is at an angle of 74.5° (maximum on June 21), the "solar wall" screens the rooms from sunlight, eliminating "78 percent in the solar radiation which might be transmitted through the window from direct sun effect."

HEALTH-GIVING ARCHITECTURE

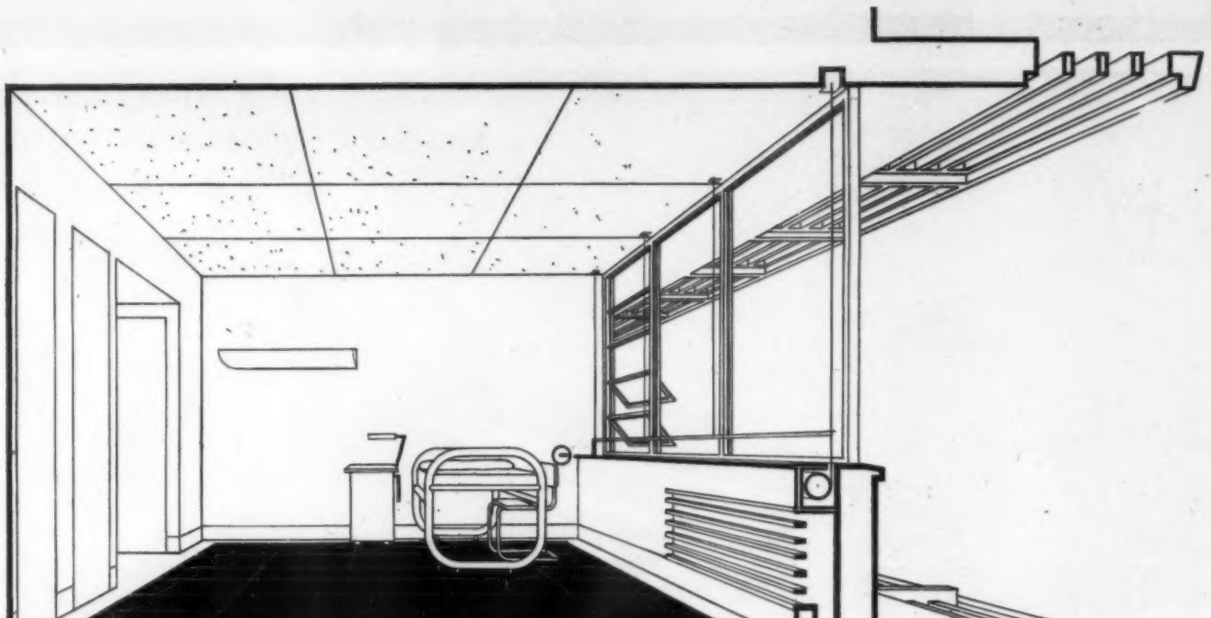
Continuing his discussion of hospitals and the new treatment methods that permit earlier ambulation and quicker discharge, Dr. Signorelli lists a few architectural improvements which assist doctors in their work and help the convalescent and ambulatory patient toward total recovery:

1. A cheery, warm atmosphere; color.
2. Large windows, to allow more sunlight in every patient's room; the advantages of solar warmth.
3. Soundproofing to decrease the annoyance resulting from hospital movement and traffic.
4. Air conditioning; newer forms of panel heating; air sterilization; improved call systems.

All of these, the doctor says, "aid in giving the patient greater sense of security and comfort." In addition, he recommends provision of special convalescent units, so that "the acutely ill and recently operated cases can be given the maximum care . . . (and) the convalescent, in turn, is benefited by being removed from the atmosphere of tension and apprehension that necessarily surrounds the acutely ill . . . The convalescent then requires less intensive treatment and feels better. The psychological factor in these cases is tremendous."

He also pleads for various design devices "that help the patient help himself"—such things as ramps in place of stairs, where possible, and rails along the walls of halls and in rest rooms. Nor does he overlook the increased efficiency to be gained by centralization of supply and service systems. By these and similar planning features, "the expensive machinery and personnel can be used chiefly in the first few days of acute illness or surgery. The capacity of the hospital will be increased without any additional beds or equipment."

The basic plans for the new Faith Hospital are a full-scale demonstration of how progressive design can achieve most, if not all, of these goals.



THE INDIVIDUAL PATIENT'S ROOM

Since the well-being of the patient is the chief reference point in the design of Faith Hospital, it is not surprising that the individual room received exceptional study and is, in fact, a major determinant in the design of the building as a whole.

Oriented along the southern wall of the hospital, these full-windowed rooms are bordered on the outside by projecting hoods or balconies of a depth such that they screen out the sun in summer and provide maximum penetration in winter. In addition, these balconies serve as platforms for window cleaning.

For the patient's privacy, a roll-up screen is provided that may be raised from the sill to any desired height, including complete coverage of the window. As shown in the cut-away drawing, this is designed integrally with the sill and the furred-out space beneath that allows for recessing of a heating unit (see discussion of heating and air conditioning, Page 61).

The typical double room is 13 feet by 15 feet in area, with the long dimension (3 times a 5-foot module) parallel with the window. Beds are placed at opposite ends of the room, instead of alongside, and the length of the room permits temporary screening between them. This bed placement further means that each is the same distance from the window, and neither patient has the more favorable view.

Window glazing is double-layer, insulating glass. John D. Falvey, consulting engineer, reports the advantages gained over ordinary single glazing. Th coefficient of transmission, using "⅛-inch panes an ¼-inch air space, is .62 Btu per square foot pe degree difference, whereas ⅛-inch-thick single gla ing has a coefficient of 1.1. The lower conductivit . . . will require less radiation [about 20 percent i the typical room], with a saving in the first cost o the heating system as well as in the fuel cost."

Should the rooms be air conditioned in summer (a is contemplated), "the low heat transmission wi result in a smaller air-conditioning plant—a savin in installation, operation, and maintenance."

"We have disregarded the sun effect," Mr. Falve says, "assuming that the balconies or projection will be installed in such a manner that the direc sun effect on the glass will be minimized in summer."

For night lighting, no final decision has been made The architects know there will be no ceiling fixtures and they hope to develop "a lighting source behin each patient's bed designed in such a way that if th patient is lying down, only the wall behind hi would be illuminated; if the patient is sitting up the wall behind him and a portion of the ceilin would be illuminated." To achieve this flexibilit they are speculating about some sort of fixture tha is "movable vertically."

Every room is within 100 feet of the nurses' station and each has access to a toilet room with bedpa units, as shown on the diagrammatic floor plans.

FAITH HOSPITAL

JOSEPH DENIS MURPHY, Architect
ANGELO G. CORRUBIA, Associate

BASIC ORGANIZATION

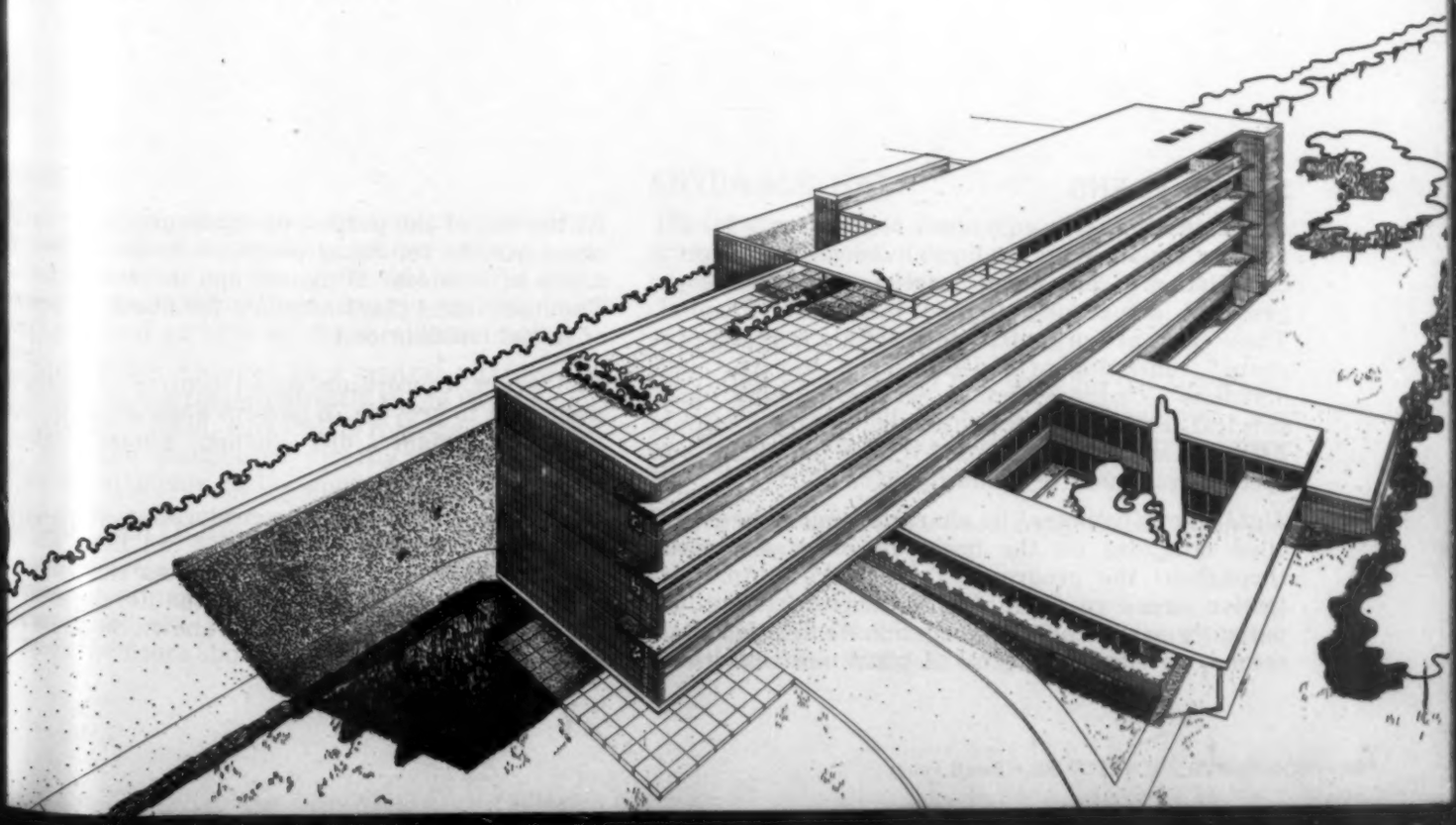
As has already been pointed out, the basic horizontal organization of the building consists of placement of patients' rooms on the south, corridors and service rooms in the center, and other service and operating rooms to the north. A ground-floor projection to the south contains the outpatient department, and this is reached along a covered walk without interference with the main entrance to the hospital. Patients and guests enter at the west end of the main block beneath a broad, sheltered area formed by the cantilevered overhang of the upper floors. The ambulance entrance (see plans) is at the rear of the building, out of sight of patients' rooms; and both staff and service entrances occur on the east, the latter being a ramp from the ground level to the basement.

Vertically, the organization of the building is as follows: the basement houses storage, food preparation, and laundry, in addition to the mechanical plant and attendant offices. The ground floor includes all administrative offices, the outpatient department, X-ray department, and emergency facilities; the second and third floors are surgical and general-hospital floors, including patients' rooms, and services. On the second floor are the operating rooms, and a pediatrics department is tentatively planned for the third floor.

The fourth floor is entirely devoted to maternity, and consists of patients' rooms, services, delivery rooms, and a nursery. The fifth floor is the convalescent area which Dr. Signorelli considers so vital to efficient hospital operation. Here recovering patients are moved and have the open roof as well as rooms with private terraces to enjoy.

PROPOSED STRUCTURAL SYSTEM

The present plan is to use reinforced concrete construction up to the second-floor slab, with a structural-steel frame above; columns will occur at 5-foot spacing on exterior walls, this dimension becoming the module for window sizes and the length of rooms. The projecting hoods or balconies are to be of architectural concrete; sills, copings, and incidental trim, limestone. Since St. Louis is a brick center, the design calls for a local, light red brick to be used on exterior wall surfaces. Sash and frames will be either aluminum or steel.



FAITH HOSPITAL

JOSEPH DENIS MURPHY, Architect
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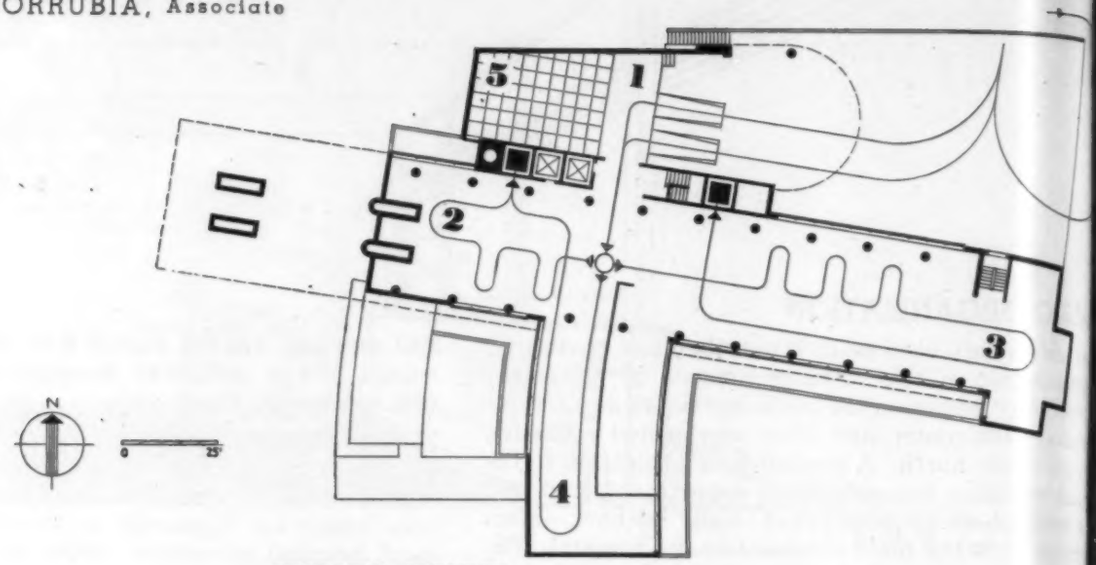


BASEMENT

Centralized control of all deliveries is desirable but, in this particular plan, question arises as to location of food storage space near active hub of circulation. Architects are now studying feasibility of locating food delivery and storage at east end of kitchen area. With this one exception, control and traffic flow to separate areas and to vertical distribution appear excellent.

SUPPLIES, SERVICE

1. **RECEIVING OF ALL SUPPLIES.**
2. **CENTRAL STORAGE:** central oxygen unit; surgical and medicinal storage, preparation, cleaning and sterilizing; office.
3. **FOOD PREPARATION:** storage; preparation; cooking; service; dishwashing; sterilizing; office; help's dining rooms.
4. **LAUNDRY AND LINEN SUPPLY:** receiving; cleaning; sterilizing; storage; office.
5. **MECHANICAL PLANT:** heating and air conditioning equipment; water; maintenance

FLOOR PLANS

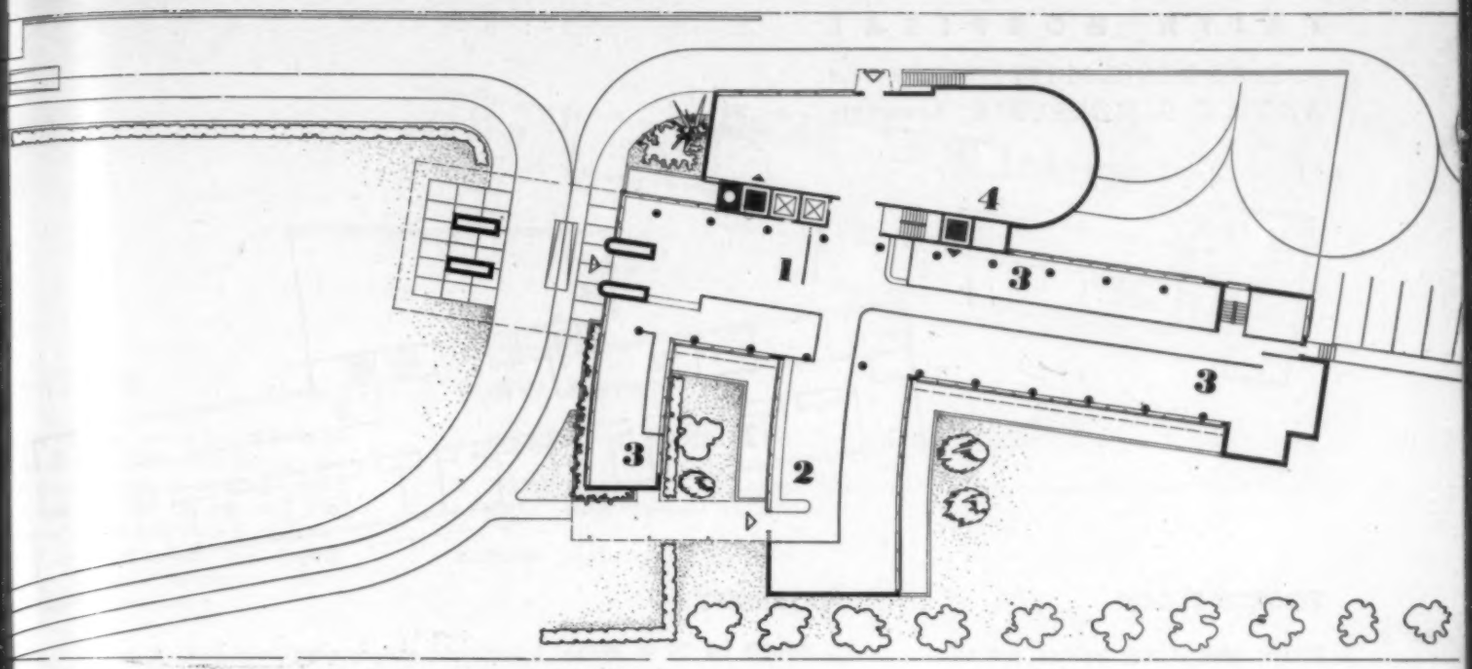
An extensive survey into space requirements for the various departments and subdivisions, based on a compilation of data about hospitals of similar scope, preceded actual planning of the Faith Hospital. These data are organized into a "preliminary program," consisting of a definition of the five main divisions — administration, service, nursing units, surgical, and outpatient—followed up by a minute listing of square footage needed, plus notations as to special equipment or planning elements.

Significant footnotes, in character much like penciled notations on the backs of envelopes, occur throughout the program. Typical are: "Administrative areas perform double function; first, the patient's or visitor's introduction to the hospital; second, an efficient control of plant and activities."

At the end of the portion on space needs for service areas are the following pertinent items: "Centralization of services. Minimum and direct circulation. The mechanical plant accounts for about 30 percent of initial building cost."

And again, concerning sound control: "Acoustical treatment to provide 75 percent absorption, particularly in corridors, diet kitchen, nurses' stations, toilets."

In addition to the studied consideration given to the individual patient's room, which we have already explored, there are several basic plan elements and relationships which determined the development of the diagrammatic floor layouts shown on these and subsequent pages.



IRST FLOOR

xcellent separation of departments and ntrances — main lobby, outpatient de- rtment, emergency (at rear) and ramp basement services. OPD occupies all pace within the south wing numbered 2." Pharmacy would be located at point to the west) where OPD wing and main lock of building meet, accessible to oth main lobby and OPD.

ADMINISTRATION

1. **LOBBY AND BUSINESS:** information; business office; cashier; records; pharmacy.
2. **OUTPATIENT DEPARTMENT:** waiting room; administration office; social service office; medical records; consultation office; examination rooms; dressing alcoves; treatment rooms.
3. **ADMINISTRATION:** director's office; secretary; board room; staff lounge and lockers; nurses' lounge and lockers; registrar; special nurses' lockers; priest's or minister's room; auditorium (50 seats).
4. **X-RAY AND EMERGENCY:** receiving and treatment; ambulance entrance; bath and toilet; X-ray room and services; laboratory; cystocopy; splint and fracture room; dark room; autopsy room; utility and sterilizing.

ERVICES

ll services are centralized and coordinated with e vertical circulation. Since all services and op- rating rooms are on the north and divided from e rooms by corridors, the rooms are well insulated om noise and activity of the service elements.

ll supplies are received at a central platform in e basement, distributed directly to the three major rvices: food, linen, surgical. From these services, ey are then distributed directly upward to the veral departments on the upper floors.

DMINISTRATION

dministrative offices are located on the first floor, tween the central storage and supply areas in the sement and the patients' rooms and operating oms on the floors above.

ENTRANCE HALL

The foyer or lobby is designed much as an attractive entrance to a hotel, completely separated from the administration and services.

OPERATING ROOMS

Operating rooms are all in a wing on the north side of the building. The principal operating rooms are on the second floor, along with rooms for the more critical surgical patients.

Emergency, operating, and X-ray rooms occur on the first floor.

Additional information and evaluations are given in the paragraphs accompanying the schematic plans shown on these and following pages.

FAITH HOSPITAL

JOSEPH DENIS MURPHY, Architect
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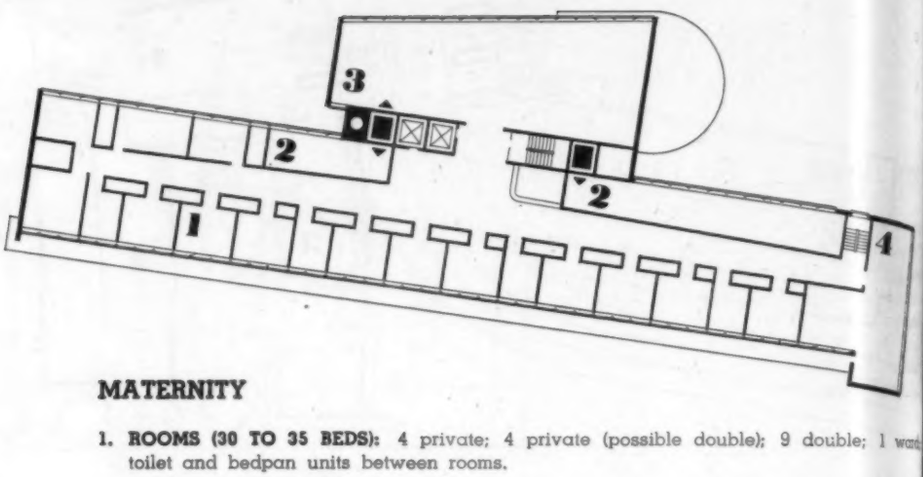
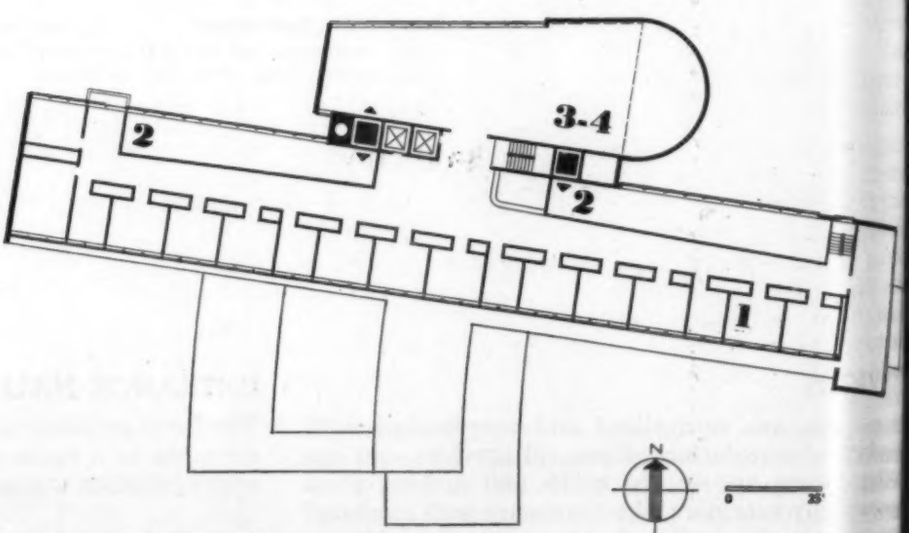


FOURTH FLOOR

Narrow shape of main building, with all patients' rooms on the south, is due to architects' wish to keep major mass as far to north of lot as possible, giving maximum open ground area toward the south. Note location of nurses' station (at right of passage to delivery area). As on all other floors, no patient's room is more than 100 feet away.

MATERNITY

1. **ROOMS (30 TO 35 BEDS):** 4 private; 4 private (possible double); 9 double; 1 ward; toilet and bedpan units between rooms.
2. **SERVICES:** nurses' station; chair closet; supply closet; linen storage; housemaids' closet; utility and sterilizing; diet kitchen; treatment and dressing.
3. **DELIVERY:** 2 labor rooms; utility; 2 delivery rooms; sterilizing; scrub-up; nurses' waiting room; lockers and storage.
4. **NURSERY:** space for 20 beds; isolation; bath; formula.

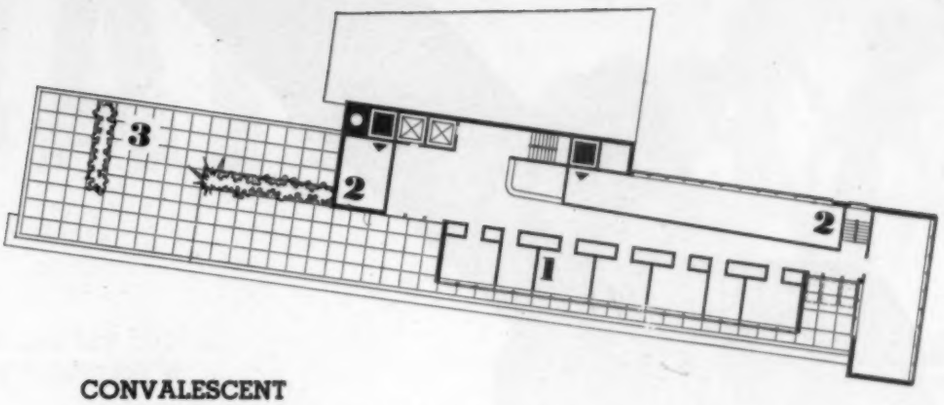


SECOND and THIRD FLOORS

Circular end of northerly unit (on second floor) indicates possibility of incorporating a round operating room, but "the pros and cons are still being weighed." At present, west wall of building nearest street is blank, partly to screen hot west light, partly for appearances' sake—"a solid vertical mass with which to complement the horizontal voids and solids." However, further study may introduce some openings, both here and in the north and south walls of ward.

SURGICAL AND GENERAL

1. **ROOMS PER FLOOR (30 TO 35 BEDS):** 4 private; 4 private (possible double); 9 double; 1 ward; toilet and bedpan units between rooms.
2. **SERVICES PER FLOOR:** nurses' station; chair closet; supply closet; linen storage; housemaids' closet; utility and sterilizing; diet kitchen; treatment and dressing.
3. **OPERATING (SECOND FLOOR ONLY):** two major operating rooms; minor operating room; sterilizing; scrub-up; utility; instruments; nurses' workroom; anesthetizing; lockers; equipment storage.
4. **(THIRD FLOOR ONLY).** Undetermined—pediatrics, physical therapy or?



FIFTH FLOOR

In this floor, the doctors feel that "some of the services of the usual nursing unit could be eliminated at a saving in cost to the hospital and the patient." This separated convalescent floor is also considered for its beneficial psychological effect on the patient, leading to a shortened hospitalization period.

CONVALESCENT

1. **ROOMS (14 TO 17 BEDS):** 2 private; 2 private (possible double); 3 double; 1 ward.
2. **SERVICES:** Nurses' station; supply closet, linen storage; housemaids' closet; diet kitchen; baths; utility; treatment and dressing.
3. **ROOF:** shaded and sunny areas.

HEATING AND AIR CONDITIONING

Several heating methods are under consideration, but the choice seems to be narrowing down to either a two-pipe vacuum system or one consisting of individual room units.

Discussion in favor of the two-pipe vacuum system centers around its flexibility, allowing temperature control by zones for exposures, with individual control of room temperature made possible by introduction of thermostats and controlling diaphragm radiator valves on each radiator. The architects very much hope, however, that budgets will allow for eventual use of summer cooling as well as winter heating. This possibility argues for the individual-room-unit system, which would consist of a central station apparatus to take air from the outside and control humidity, a distributive system, and the individual room units with temperature-regulating controls. At the moment, the discussion, as summarized by consulting engineer John D. Falvey, stands about as follows:

The individual-room-unit system, without the cooling system, would probably cost 50 percent more than the two-pipe vacuum system. But the installation of the former would provide the bulk of the apparatus necessary for future cooling. If, therefore, we contrast these two systems on both a heating and cooling basis, the individual-room-unit system would cost 20 to 25 percent less than the two-pipe vacuum.

The operating costs of the two-pipe vacuum system for heating only would be 15 to 20 percent less than the individual-room-unit system, but the latter would be 15 to 20 percent cheaper to operate on the basis of heating and cooling than the vacuum system, plus a central cooling system for each floor."

The chief disadvantage found in the room-unit system is the space required for installation of fan, coil, filter, etc., either on each floor or on every second or third floor; also the bulk—again, a question of space consumption—of the heavy-duty outlets in the rooms themselves.

Here the matter stands, but the architects have noted in the margin of the engineer's report, "This is what we *hope* to use," alongside the description of the individual-room-unit system.

Model by Archer Walters and David I. Nes

HOW LONG?

Shall we have another world war and oblivion? Yes, unless we accept the simple code Christ offered 1946 years ago—equality of humans, the brotherhood of man, things of the spirit, like honesty, love, respect, justice, faith, and hope. We must clean away the parasites that keep us from seeing the simple truth. We must accept the one moral code as we are accepting the other "ones"—one world, one human race, one world government and, finally, one peace.

Bernard Livingston

AM I MY BROTHER'S KEEPER?

A diatribe against selfish accumulation of "things" as a goal in life—a goal the individual can reach only through economic slavery of others, a seedbed of war.

ESCAPE?

In times past, the inevitable refugee escaped the wrath and persecution [illegible] war; today, in a world all war, there can be no refuge. The lesson is [illegible] in foreign lands; we shall know it here in America if we are weak and [illegible] enough to allow World War III.

AN INDICTMENT OF WAR

——— A "MEMORIAL" TO ITS CAUSES AND VICTIMS HARRY MARIINSKY, SCULPTOR

This shocking group grew out of the sculptor's outrage at the human tragedy of modern, total warfare, at the numbing fact that the bewildered and defenseless civilian is its most numerous victim. He suggests the stupidity that allows wars to happen and he includes a strong symbol of a brave alternative that men might choose.

As opportunity permits, it is our hope increasingly to report on progress in the arts, which, along with architecture, constitute our culture. This particular work, it seems to us, carries the unmistakable imprint of honesty that is basic to any vital creative effort.

The photograph captions are paraphrases of the sculptor's own interpretations.

POVERTY . . . THE WEAK LINK

"A chain is as strong as its weakest link." The link of poverty leads to war. The cure is to eliminate the disease itself, not to dose with drugs, like charity.

OUR CROWN OF THORNS

What we are, perhaps we cannot change, but we can make that change in the child—our natural resource out of which can grow a fearless world at peace.

FEAR

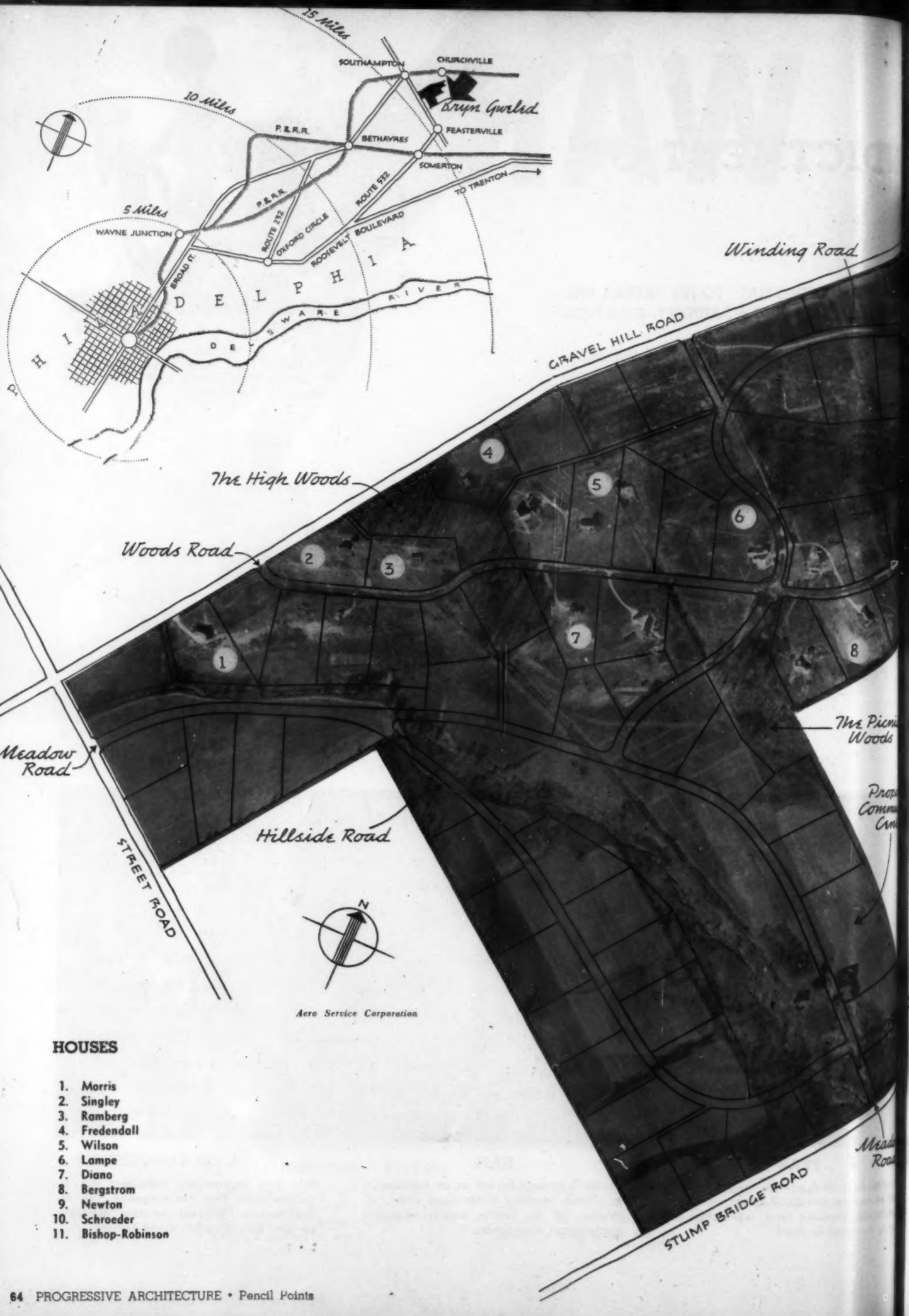
ecurity, hate, and war are inevitable in a ld where fear prevails. Personal fears, fear starvation, economic fears, superstition, all st be destroyed or cured.

RAPE

Society is ravaged by war as an individual is by disease, resulting in increased crime, destruction of the family, morally weakening psychological disturbances.

VICTOR OR VANQUISHED?

War only impoverishes; conquerors are indistinguishable from the conquered. Our interdependence demands we stop destroying our best natural resources and humans.



Aero Service Corporation

HOUSES

1. Morris
2. Singley
3. Ramberg
4. Fredendall
5. Wilson
6. Lampe
7. Diano
8. Bergstrom
9. Newton
10. Schroeder
11. Bishop-Robinson

SITE PLANNING COMMITTEE (left to right): Willard Hastings, M.D.; Thomas Michener, Engineer; Robert F. Bishop, Architect; Alfred Schroeder, Television Engineer.

BRYN GWELED

A Cooperative Homestead Development in Pennsylvania

Analysis and Discussion by RITA DAVIDSON and WILLIAM SMULL

INTRODUCTION

Megalopolis is disintegrating. Dissatisfaction with the increasing discomfort of metropolitan life has forced individuals to flee the city. Urban redevelopment, society's solution for all practical purposes, is yet unrealized, and the individual, with his limited means, feels undeveloped land the only hope.

Residential developments beyond the city's borders, stemming basically from similar reactions to present urban living, take diverse forms. The upper-class suburb produces the "country-club" type of neighborhood, a protest of fashion rather than economics. The less well-to-do must be contented with jerry-built homes on diminutive, fenced-in lots. The homesteaders, most ideological fugitives from the city (some of whom continue to work in town), seek the spaciousness of rural living and the security part-time farming affords.

Bryn Gweled should be appraised as part of this widespread "flight from the city."

The Authors

240 ACRES of rolling farmland 81 lots of about 2 acres each. 1945, there were 12 complete houses and 3 cellar dwellings (photo above).

BRYN GWELED HOMESTEADS

THE FOUNDING

Bryn Gweled (Welsh for Hill of Vision), a new community in Bucks County near Philadelphia, is a cooperative homestead development which resulted from the efforts of several families who shared a dislike of the tensions of city living. In 1939 they discussed possibilities of cooperative rural housing and gravitated toward Ralph Borsodi's ideas. After visiting his "productive homesteads" at Suffern, N. Y., they were convinced that the solution to their problem was a community of the Borsodi type. However, they disagreed markedly with the Borsodi idea that the community should be self-sufficient and discourage outside work. At Bryn Gweled members are required to have a source of income which is *not* based on farming.

These original families formed a tentative organization to purchase a large tract of Bucks County farm land and in 1940 incorporated as a non-profit organization. Work on the roads and utilities was started immediately and by 1941 the first family moved into its home. As of 1945 there were 12 completed houses and 3 cellar dwellings (roofed-over cellars of houses stopped by war shortages). Lots were leased to 12 other families who were unable to build at all during the war—27 families in toto.

LEGAL FRAMEWORK

Fundamental to Bryn Gweled ideals is the prohibition against individual land ownership. This restriction prevents land speculation and misuse of the lot. It also perpetuates the community's aims by making it impossible for land to be held by families with dissimilar social beliefs.

The community is Rochdale* in type with each member entitled to one vote, but it lacks "the final characteristic of Rochdale cooperative housing procedure—permanent retention by the association of the title to land *and* dwellings. In a thoroughgoing cooperative, the member would hold shares of stock in the association to the value of his house and land. The construction of dwellings would be carried on by the association, and the member would never receive the title to the land he occupies, but only a lease running indefinitely for as long as he was acceptable to the other members." ("Cooperation in the Building of Homes." *Monthly Labor Review,* February 1941.)

In Bryn Gweled each member holds his land on a long lease from the community; the houses, however, are privately financed, constructed, and owned. Monthly assessments which range from $8 to $11 depending on land holding, include county taxes on the common land, interest on community indebtedness, and amortization of the capital.

The assessment varies annually with the budget. Originally the group hoped to have common financing and construction of homes, but financial limitations and wartime restrictions made both impossible. Each family has title to its own home subject to restrictions on subletting, sale, and inheritance.

Houses may not be sublet for any period exceeding a year without community permission; nor may the

*Rochdale cooperatives are patterned after the British prototype founded in 1844 by which the whole of British Cooperation and much of that in other lands, has grown. Its principal characteristics are democratic government with one vote to a member, return of surplus earnings in proportion to each member's patronage, and political and religious neutrality.

All photographs, except air view, by P. A. DEARBORN.

GROUP PARTICIPATION in various activities is an important aspect of life at BRYN GWELED. Above, members of the Planting Committee (Mrs. Robert F. Bishop, chairman, center) work on a roadway intersection.

Mrs. SCHROEDER plays for a children's sing.

Mr. and Mrs. LAMPE organize a square dance.

Mr. DIANO built the children's carousel.

be sold to or inherited by non-members. Should a member die or wish to sell, or should a bank foreclose on a building loan, the community has prior rights to purchase the house at a fair price or to accept a new owner in membership. Children are not members automatically and cannot "inherit" a house in the usual sense. They may be voted into membership should they desire to continue in the community. Bryn Gweled believes it will always have sufficient capital to enforce the provisions regarding succession of house ownership. The prohibitions are somewhat similar to those in several other cooperative housing ventures in America (for example, Crestwood Community at Madison, Wis., and the St. Paul Housing Project in Minnesota) where title to the homes is held privately, but the organization exercises control over future residents.

FINANCING

Land purchase and development were financed by issuance of certificates of indebtedness at 4 percent interest which are held by community members and interested outsiders. Each member pays an admission fee of $50 and is encouraged to invest in the 4 percent certificates which are redeemable upon six months' notice. To date, expenditures total $25,000, of which land cost accounts for $18,000, site development and utility installation, the remainder. The very low cost of the latter was due to the efforts of community work parties which, in the spirit of frontier "house raisings," provided fun for the members at the same time that they helped develop the site.

THE BERGSTROM HOUSE

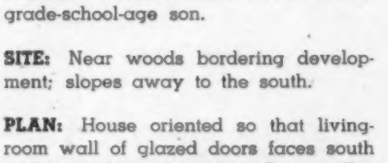
WALTER T. ROBINSON, Architect

FAMILY: Social worker; wife (teacher); grade-school-age son.

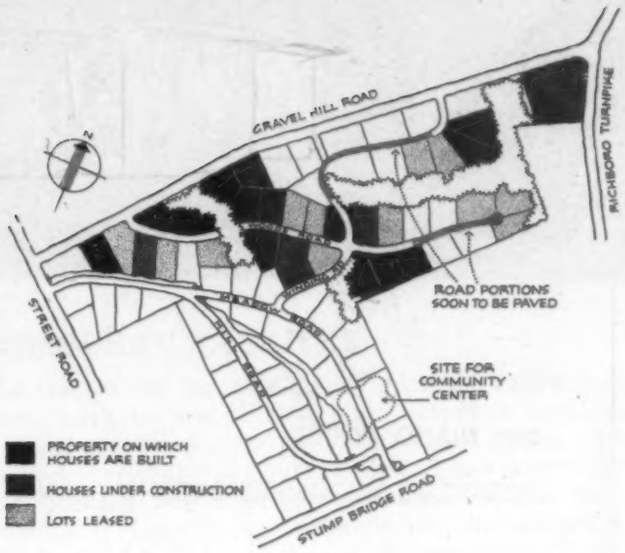
SITE: Near woods bordering development; slopes away to the south.

PLAN: House oriented so that living-room wall of glazed doors faces south and most-favored view. Root cellar occurs beneath kitchen and entrance-hall space; storage and heater room, under dining-living room; otherwise, unexcavated. Living room must be used as passage, but planning keeps traffic to one side; corner windows in bedrooms provide good wall space for beds. Entrance centralized, whether approach is on foot or by automobile. Cross ventilation in all major rooms.

CONSTRUCTION: Frame on stone foundation; insulation in walls and roof.



Floor Plan



THE SITE AND COMMUNITY LAYOUT

About 20 miles northeast of Philadelphia, Bryn Gweled is almost equidistant (about 1½ miles) from Southampton, Feasterville, and Churchville, small towns where the bulk of the marketing is done.

The site reflects the basic desire of the homesteaders to get away from the small vistas and cramped quarters of town life. Their 240 acres, obtained through a real estate agent, consist of rolling farm land with small wooded patches, some marshland near a winding brook, and some very steep land quite unsuitable for building or farming. Much of the land slopes away to the southeast and affords a pleasant view of the surrounding countryside.

A macadam road system (still incomplete) is planned to tie together the three sections of the T-shaped site. Part of the basic road construction was done by the homesteaders with the help of a rented bulldozer, but the specialized surface work was contracted. This construction was financed by notes for $5,000. Immediate plans call for completion of Woods Road and Winding Road; development in the southeast section awaits the leasing of lots there.

The Homestead investigated the possibility of having community water and sewage systems and generating its own electricity. None of these was practicable: electricity is purchased on an individual basis and each home has its own well and disposal system. A feature that adds considerably to the community's appearance is the underground wiring for telephone and electricity; for the section now developed this difficult installation cost only $2,000 since the homesteaders did much of the work themselves. There are scenes of this construction project in the Bryn Gweled documentary color film which the Publicity Committee prepared.

Preservation of the best building land was the chief reference point used by the Committee which sited the lots and planned the road system. The flat and rolling land was platted into 81 lots of approximately 2 acres each, leaving 80 acres to be used in common as park and road. This common land is particularly picturesque with trees, streams, and views. The generous lot size, together with the common land weaving through the community, affords to each house the privacy of an estate and permits fairly extensive household farming. Of the 81 building lots, 33 have been leased to date: 19 families have one lot each, 4 families have 2 lots each, and 4 have 1½ lots each. The remaining 48, largely in the southeast section, are yet to be leased.

It is difficult to predict the eventual population of Bryn Gweled, for this is a factor of both the number of lots each family will hold and the individual family size. At present the community believes that from 40 to 70 families will occupy the Homestead when it is fully developed. This wide span results from indecision about the number of lots each member may lease. The more ambitious homesteaders feel that 4 acres are not too great for staple farming and the maintenance of livestock. Others are well satisfied with only 2 acres, since, in addition to not sharing the interest in subsistence farming, they want the community to become as large as possible. Assuming an average of 3.8 persons per household,* the community therefore might have as few as 150 persons or as many as 275. Even with a maximum of 70 families this would mean only 1.15 persons per gross acre!

* *This is the present figure, but the families are all quite young and a higher figure will prevail eventually.*

THE DIANO HOUSE

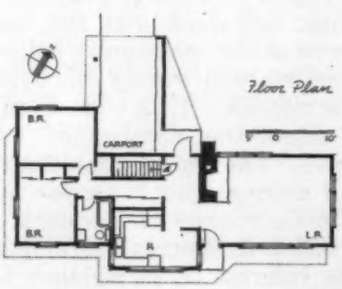
ROBERT MONTGOMERY BROWN, Architect — CORNELIUS VAN R. BOGERT, JR., Designer

FAMILY: Stained-glass artisan; wife; 2 small children.

SITE: Comparatively level; best outlook to east and south.

PLAN: Central entrance hall, accessible from both car shelter and front door, provides good circulation and privacy. High-ceilinged living-dining room, also used as studio; large kitchen, arranged in efficient U plan, equipped with sizable view windows. Basement, under whole house except bedroom wing, where crawl space is provided.

CONSTRUCTION: Frame, on stone foundation; slight pitch of roof over living-studio, provided by cutting 2" x 10" joists to desired angle; roof over rest of house, dead level with interior downspouts. Sun-control overhang on south and west: 2" x 6" tongue-and-groove roofers laid diagonally. Contractor took house to framed and sheathed stage; owner set steel sash and applied exterior siding and interior finish.



SOCIAL STRUCTURE

Bryn Gweled has no intention of becoming a middle-class suburban enclave. Selection for membership is based upon similarity of interests rather than the traditional identifications of race, religion, or economic class, and there is a positive effort to encourage a representative distribution.

The community belief in slow growth is reflected in the procedure for admitting members. Prospective homesteaders are invited to visit the families on the Homestead and to become thoroughly acquainted with the community and its way of life. Each applicant has a face-to-face relationship with almost every member and, if and when accepted, the new family is already a part of the social group. It is not surprising that most of the members are professionals, considering the intellectual basis of the Homestead. Among others, there are engineers, teachers, social workers, *three architects*, a minister, and a craftsman.

The 15 families now living on the Homestead have 26 children; except for 2 girls at college, all are below fourth-grade age. There is no organized nursery for the pre-school children, but the mothers take turns in conducting an informal nursery in their homes. Since the public school at Southampton, which includes high school, has no kindergarten, most Bryn Gweled children of 4-6 years are driven to a private kindergarten in Somerton (3 miles away). A school bus transports the grade-school children to Southampton. The parents are pleased with the public school facilities, and probably most of the children will be educated by the local system.

Bryn Gweled does not desire isolation from its neighbors and the homesteaders take an active interest in the affairs of neighboring communities. Their activities include the Chamber of Commerce, the school association, the county zoning committee, and public library work. Two Bryn Gwelederes belong to the volunteer fire company.

COMMUTING

As with many suburban communities, living at Bryn Gweled involves a considerable amount of traveling for its wage earners. Most of the men have to commute at least an hour, going to either Philadelphia or Princeton, N. J.

Philadelphia may be reached by train or bus and train on the Reading Railroad and of course by car. Either way the trip takes more than an hour (for those who travel to the far side of the city, up to an hour and three-quarters). The Princeton trip is more complicated, costly, and time-consuming. There is car pooling for trips to the station and trips to town. Foreseeable technological change, helicopters excepted, probably will not affect commuting time or convenience.

COMMUNITY FACILITIES

The Homestead depends largely upon the automobile since markets, schools, the mail, churches, and entertainment are beyond easy walking distance. The nearest stores are at Southampton. Delivery trucks and farming only partly compensate for the inaccessibility. Usually the husbands pick up necessary supplies and mail in the course of commuting. Clothing and household shopping is rare and awaits the occasional trip to the city.

The distance to the nearest movie house at Hatboro (about 5 miles away) is not significant since there is little interest in such entertainment. This is due partially to the two television receivers at the community. Neighbors drop in frequently to spend a television evening at the homes of the two engineers who have sets. The time-demands of homesteading as well as interest in the homely entertainments compensate in part for the lack of nearby commercial entertainment facilities. Of course the children are not yet of "movie age." (Query: does the Bryn Gweled experience indicate that television will eventually displace the movie house?) Although the homesteaders consider themselves within the Philadelphia metropolitan area, home tasks, raising children, and farming allow only infrequent trips to the concerts, theatres, and other cultural resources of that city. There are some cultural activities at the Homestead, however, and the community may justly be proud of the pipe organ which Mr. Fredendale is building and the celestial telescope of the Robinsons.

The homesteads are definitely year-around homes, and they afford more natural amenities than do most resorts; many recreational facilities are at hand. There is a temporary swimming pool, and a more permanent one is planned. For the time being, a barn serves as a community building, but a permanent center that will house a nursery, guest rooms, and a dance hall is contemplated on the same site.

The cooperative concept extends beyond land ownership. Much farm equipment is owned in common; there are community deep-freeze lockers; produce is exchanged among members; and there is a plan for cooperative farming, to be done by a hired farmer. The Homestead dances and parties also exhibit the community spirit, and a guest of one family often is a guest of the entire Homestead.

THE WILSON HOUSE

PAUL BEIDLER, Architect

Floor Plan

FAMILY: Social worker; wife; 3 school-age children (2 boys, 1 girl).

SITE: Top of hillock with broad views, particularly to east and south. Owners wanted flat land for lawn and flower gardens.

PLAN: Main living rooms face south. The owner tells us that the covered breezeway is "the coolest place on the Homestead; the favorite playground of the children of the neighborhood; a very usable outdoor workroom in canning time; a protected clothesyard, etc." Outside door near bathroom makes it so that one can come in from outdoors without going through rest of house. Large window areas with special bays take advantage of views. Attic space, used for storage; basement, under the kitchen-bath area. Dual-purpose rooms: kitchen-laundry; living room-dining room; study-library-bedroom.

CONSTRUCTION: Frame, on a concrete slab. House is heated by combination radiant and warm-air systems. Warm-air ducts run through the slab warming the floor en route to baseboard grilles.

The owner states: "With the help of a good architect, we feel that we got 98% of what we wanted for happy and comfortable living . . . We are tremendously enthusiastic about our house."

EVALUATION

Though the rustic setting provides a wholesome rural environment for the offspring of Bryn Gweled, it may not be a permanently satisfactory solution. Charles Ascher's article, "What Are Cities For?," in the November 1945 issue of the *Annals of the American Academy* makes an interesting point. He maintains that suburban life, offhand the easiest way to achieve the desired balance between the advantages of the city and the values of the farm, actually is the most artificial of all. Ascher suggests that "the suburban trend is really a series of cyclical movements. Young married couples move thither for the decade or more during which the growing youngsters benefit most by the country-like surroundings; but by the time they are of college age, both parents and children seek values that the suburbans do not afford." Inasmuch as most of Bryn Gweled's children will not be of college age for almost a decade, whether or not this thesis applies here cannot now be weighed.

In fleeing the complexities of city life the homesteaders have substituted sizable distances in the countryside. Their widely scattered homes set in an already isolated location tend to mitigate against the human scale they set out to achieve. Inability to reach by foot essential facilities (stores, an elementary school, a post office, church, or auditorium) prevents Bryn Gweled from becoming a complete neighborhood. Within the Homestead itself, which, unfortunately, is more a subdivided tract than an over-all community plan, the distances from one end to the other and from one house to another are considerable. It is difficult for an adult to get about the grounds without car or bicycle, and for a small child, almost impossible—an important factor for a one-car commuter family.

A more cohesive and rational site plan with one-acre lots might have preserved the country while guaranteeing room enough for members so that basic neighborhood facilities could be established on the Homestead. In our opinion, one-acre lots provide sufficient privacy around any house, especially when set in a park, and are about the maximum an employed person can maintain properly. Even at Bryn Gweled only one of the two acres usually is set aside for farming. Smaller home sites grouped about a green would have made it possible to set the community within a greenbelt of park and farm land. Cultivation could then be far more efficient than the present tillage of individual patches, and the community would be preserved from encroachment. Under the present plan many of the homes are right on the public highway unprotected from roadside nuisances. The more compact arrangement would have given Bryn Gweled the three-dimensional sense of community so lacking now.

Its fundamental aims put the community in a near-Utopia class but, unlike most Utopias, it is likely to succeed. Promising indications are the joint land ownership, the security the productive homes on two or more acres afford, the actual participation of the members in the physical development, the promotion of better race relations, and the lively interest in the consumer cooperative movement. Certainly the families' living standard is far higher than generally could be achieved on their incomes.

APPLICABILITY

Unfortunately, the mechanics creating Bryn Gweled are such that the community does not readily serve as a prototype for other similarly inspired groups. Aside from land ownership, the Homestead is a cooperative primarily in the social sense; savings through wholesale purchasing and building have not been generally possible. The homesteaders here were usually able to finance their homes privately or could afford the time to build for themselves, a situation not too generally prevalent. The density is too low to develop economically most land that is available, and the isolation it creates is unattractive to many cooperatively-minded individuals. Communities starting de novo generally cannot afford to hold many undeveloped tracts while waiting for amenable new members, nor is Bryn Gweled's population representative, for the children are very young and have not yet asserted "teen age" demands. Homesteading does not make sufficient savings possible to send the children to out-of-town college which is almost imperative in a community of this location and type.

Bryn Gweled as an individual community is an admirable experiment in cooperative living. However, it depends too much upon the technology, organization, and accumulated wealth of the very society it is escaping. Yet, if people are to achieve a balanced life, they have little recourse but to migrate from the towns until those who plan can make the central city sufficiently attractive to capture the initiative and energy of people like the homesteaders.

THE SCHROEDER HOUSE

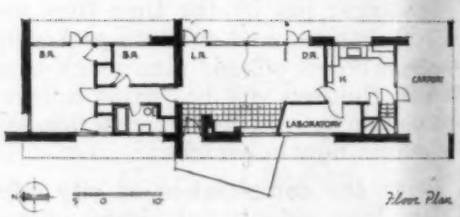
PAUL BEIDLER, Architect

FAMILY: Engineer; wife; 1 young daughter.

SITE: Fairly level; cool adjoining woods and brook provide privacy on east toward which house is oriented.

PLAN: One of the two houses at Bryn Gweled equipped with television equipment. Entrance directly into living room; bedrooms on one side, kitchen on other; workroom behind television mechanism. Whole east wall in bedrooms and living room open to terrace.

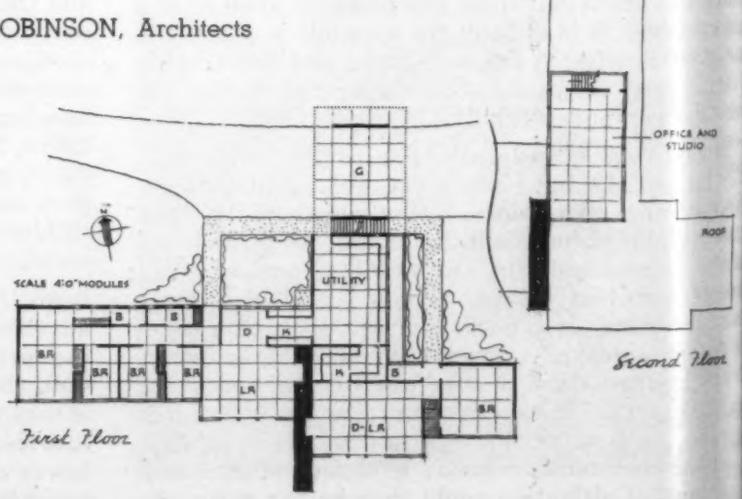
CONSTRUCTION: Built on stone foundation walls, this house has exterior walls of both masonry and frame; windows are steel sash; wood-framed roof, sheathed and finished with built-up roofing; roof construction forms a tray to hold rain water and help summer cooling.



THE BISHOP-ROBINSON HOUSE

ROBERT F. BISHOP and WALTER T. ROBINSON, Architects

A joint project of two of the architect-members of the Homestead group; planned for privacy of each family combined with economies of centralized utilities, maintenance, etc. The upper floor will be the architects' drafting room. The projecting masonry wall and the step-back arrangement of the two dwellings appear to be as effective as they are simple in providing the desired privacy. No visualization of the appearance of the house has as yet been made.



THE ARCHITECTURE

When the original families of Bryn Gweled first discussed their Homestead development, most were thinking of typical Pennsylvania Dutch farmhouses. Paul Beidler, Robert Bishop, and Walter Robinson, architects who joined the group as members, lectured on and showed color slides of famous modern homes and finally convinced most of the homesteaders to have their houses designed "from the inside out." The community's realization that progressive social ideals merit progressive architecture gave their architect-members a rare opportunity.

Community control of design, through the Site Planning Committee, consists simply of reviewing the location of the house, full freedom being permitted in design. There is at present one large "Colonial" house, and at least one other traditional house is planned for the future. The effect of a community of contemporary homes, however, has created a general pattern to which most of the new members intend to conform.

The ten houses, designed severally by four architects —Beidler, Bishop, Robinson, and Cornelius Bogert —and built individually, possess a unity based on their fitness to the land. Though there is little similarity in roof lines, or in specific proportions of glass, wood, stone, or cinder-block, the consistently high quality of design, and the appropriateness of materials create a bond more interesting and significant than standardization could produce. A street scene in Bryn Gweled, if the present trend continues, will give a unique and reasonable glimpse into the future —each house according to its owner's and architect's tastes but in harmony with its neighbors.

The contemporary homes at Bryn Gweled were created without any preconceived images; simply out of the client's requirements for living. The homesteaders are proud that in many cases they had no clear idea of the house exterior before it was built, the *plan* and the functioning furnishing the bases for discussions with the architects.

The owners are almost invariably enthusiastic in their appreciation of their homes and the only frequent "if I did it over agains" are: less petty economy, even more rigid attention to functioning (especially circulation and furniture grouping), and more freedom for the architect. They regret especially the penny-pinching which wartime conditions necessitated—reduced dimensions, substitute materials, small entrance halls (if any), too few doors.

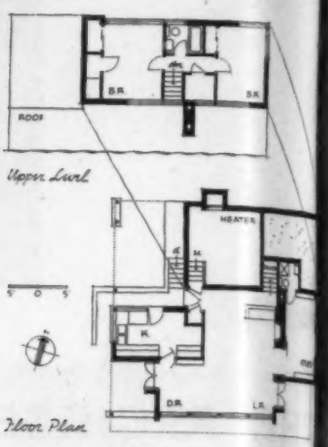
Contracting troubles, the chronic disease of contemporary architecture in the East, were particularly acute at Bryn Gweled due to the war. Some members served as their own contractors and met the problems of unsympathetic subcontractors directly. In one of the two panel-heated houses a separate contract had to be let or the Fredendalls would have had to change to hot-air heating (which their contractor "understood").

The great amount of labor which the owners themselves put into building their homes, contracting, supervision, actual construction, and site development, makes cost comparisons difficult. The completed houses ranged in cost, including the owner's estimate of his own work, from $7,000 for the smallest and most economically planned house (Singley) to $13,750 for the Morris house which originally (1941) was contracted for $7,000!

Very little site development is included in the cost figures because in most cases the owners built their own driveways, set out their gardens, and leveled their lawns after moving in. Moreover, except for four houses, there is no formal landscaping and the fields come right up to the front doors.

Although the community had hoped to help in the financing of the houses, it was impossible to create a large enough revolving fund. Because of the banks' need for foreclosure rights (two houses were bank-financed), the constitution of Bryn Gweled was altered to permit seizure of the house and its own lot should the community itself be unable to buy the mortgage. In both cases, the banks (unlike contractors) expressed more disapproval of the community organization than of the architecture!

The community's experience is a good indication that people unused to modern architecture can be educated and completely "sold" on it by reasonable architects who understand what a family wants. In this case, too, the unusually fortunate situation of close personal connections with the architects may have been partially responsible for the successful results.



THE SINGLEY HOUSE

ROBERT F. BISHOP and PAUL BEIDLER, Architects

FAMILY: Minister; wife; 1 daughter, in art school; 1 daughter, at college; 1 [illegible] daughter.

SITE: A hillside sloping to the south; access road on the north. Closeness to road, important for a minister, who may be called out during bad weather.

PLAN: Easy maintenance and low cost were guiding plan factors; over-all dim[illegible] determined by economical use of stock lumber sizes; flue provided for living-r[illegible] place, which will be built later. House arranged on two levels, living and bedroom face south and open onto deck running full length of house. Large offers exceptional storage and work space. On the lower level, two bedrooms stair hall line south wall. Heater and utility room, built into the hill at rear.

CONSTRUCTION: Lower floor walls, cinder block; above, construction is fram[illegible] horizontal wood siding. House is thoroughly insulated.

HE RAMBERG HOUSE

OBERT F. BISHOP, Architect

LIVING ROOM

AMILY: Physicist; wife.

E: Hillside sloping to the south, naturally pro-ted from the north.

AN: Arranged on two levels to conform to site pe; bedrooms with cross ventilation on upper el; main living space, study, and kitchen on view e of lower level. Chief design wish was to inte-te house with its site; terrace doors on side occur points where floor level and grade meet. Plan developing site is to use only indigenous mate-s that will yet further tie house with site.

NSTRUCTION: Cinder block walls, unfinished ex-t for water-proofing. Panel heating system in crete floors. Roof, wood-framed and insulated, oofed with built-up roofing.

DINING AREA

THE MORRIS HO

THE FREDENDALL HOUSE

ROBERT F. BISHOP, Architect

FAMILY: Engineer; wife; 2 young children (boy and gi

SITE: Gentle hillside, sloping to the north and best view

PLAN: Main rooms oriented to north and view; south light, and cross ventilation come from pairs of glazed end of living room (under open trellis) and from clere tending from kitchen wall across width of living room kitchen and big storage closet, typical Bryn Gweled Heater basement, under kitchen-dining space. Like the S house, this house is equipped for television. Mr. Fred constructing a pipe organ in space formerly occupied by

CONSTRUCTION: Concrete block. Heating is a floor-panel

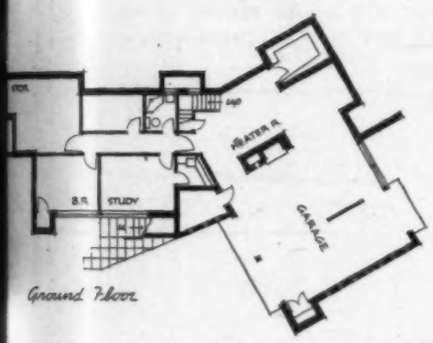
PAUL BEIDLER, Architect

FAMILY: Husband; wife; 3 boys; 1 girl.

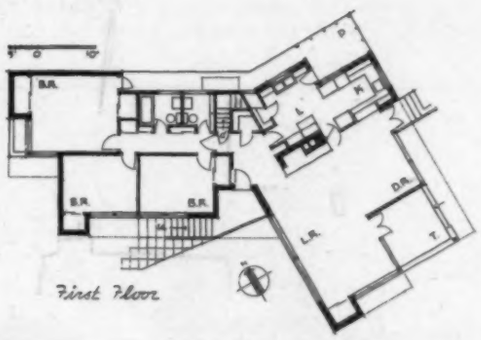
SITE: Slope toward south; adjoins a brook and woods.

PLAN: Floor area shaped to conform to existing contours; also to bring major rooms into most favorable orientation. Slope allows above-grade garages and two family rooms on south side of lower level. Upstairs, the big L-shaped living-dining room opens onto protected southeastern terrace-porch. Central entrance hall provides privacy and good separation between living and sleeping areas. Clerestories give added light and cross ventilation. A rather extravagant detail is projection of closets outside normal building envelope to form, on the exterior, piers of masonry.

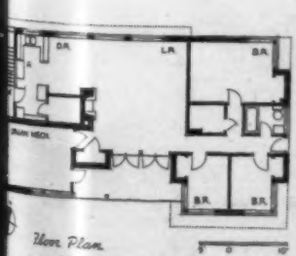
CONSTRUCTION: Concrete block, except for portions around windows, where frame with wood siding is used.



Ground Floor



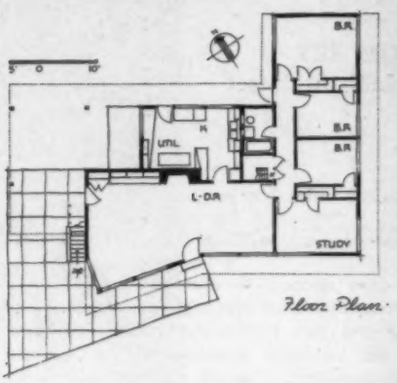
First Floor



Upper Plan

LIVING ROOM

DINING AREA



Floor Plan

THE NEWTON HOUSE PAUL BEIDLER, Architect

FAMILY: Social worker; wife; 2 young daughters.

SITE: Woods to northeast; pleasant country views in every direction.

PLAN: Second-story porch with fireplace, an unusual requirement, worked out here to be reached by outside stair. Attic includes both general storage and dormitory space for outdoor sleeping. Living-dining room, angled out to catch the sun and view. Combination workroom, utility room, and kitchen. Bedroom hall serves study. 3 bedrooms and bath; also large storage closet from which a ladder gives access to attic. No basement.

CONSTRUCTION: Frame, with exterior surfaces of siding applied both horizontally and vertically; wood sash.

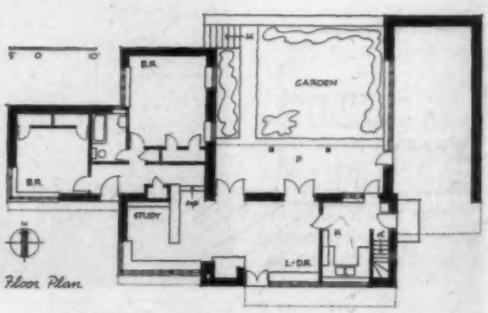
THE LAMPE HOUSE PAUL BEIDLER, Architect

FAMILY: Teacher; wife (dental technician).

SITE: Gradual slope up to north; most agreeable outlook to south; selected to incorporate existing old stone walls into house; also for good picnicking grounds.

PLAN: In describing this and other of the houses he designed for Bryn Gweled, the architect states: "South walls were opened to the sun and view; it never occurred to me that I was designing solar houses, although this appellation might be used." Big general living room is partially divided by projecting partition around study area, which also shields old upright piano from view. Placement of entrance door in bedroom hall gives dual use to space usually restricted to bedroom access. Windows in one of the bedrooms, the living room, and kitchen look out on walled, sunken garden at rear.

CONSTRUCTION: Walls chiefly of stone; portions above windows framed and finished with boarding. On the interior, all masonry portions are left exposed; framed portions are plastered.



Floor Plan

P. A. Dearborn

DISPLAY PARTITION *(DETAILS on next page)*

ARTEK-PASCOE, Designers
JEDD STOW REISNER, Architect Associated

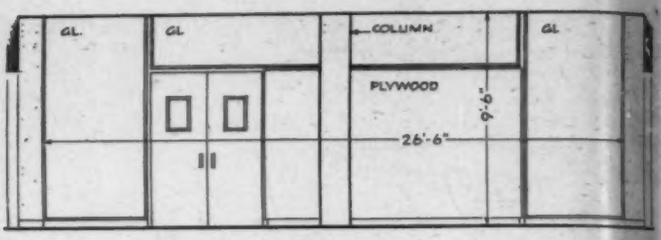
SELECTED DETAILS

P. A. Dearborn

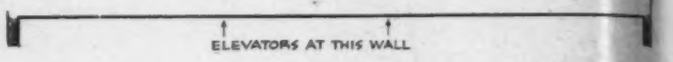
AFTER

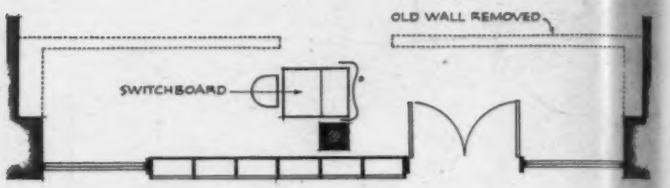
BEFORE

AIRTEX-PASCOE *Designers* JEDD STOW REISNER *Architect Associated*

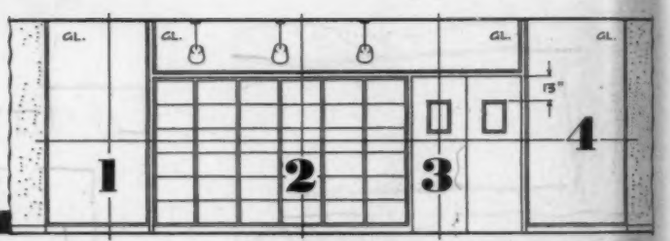


Lobby Elevation 1/8"SCALE

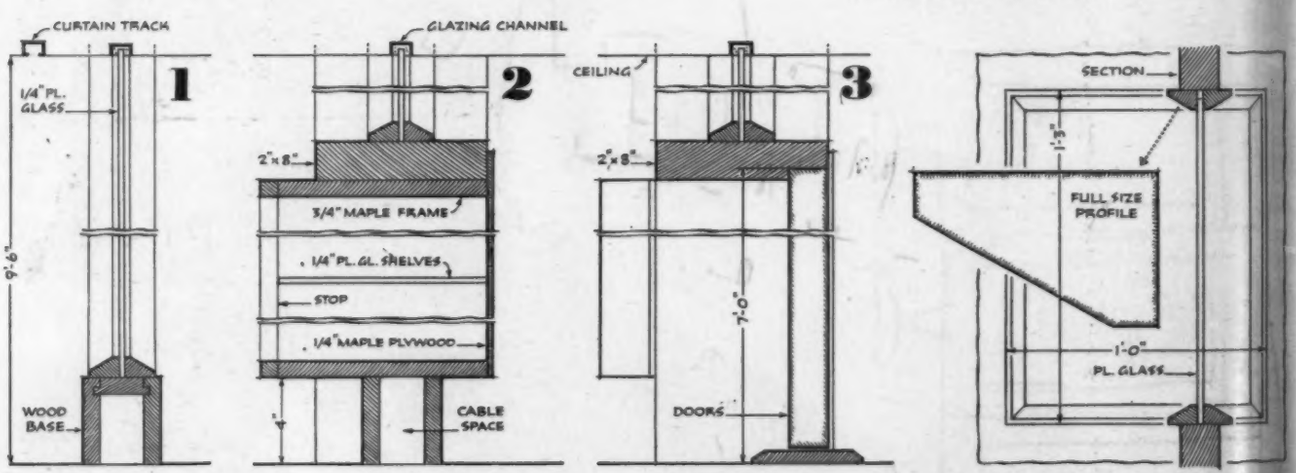




Plan 1/8"SCALE

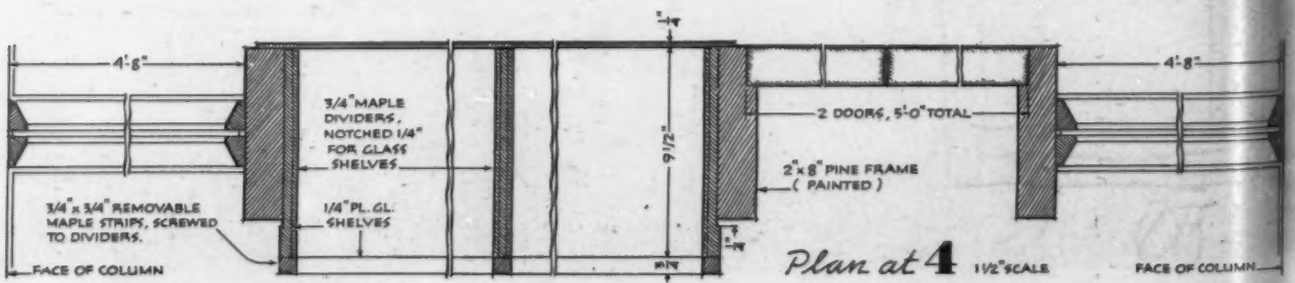


Elevation 1/8"SCALE



Sections 1½" SCALE

Door Panel 1½"SCALE



Plan at **4** 1½"SCALE

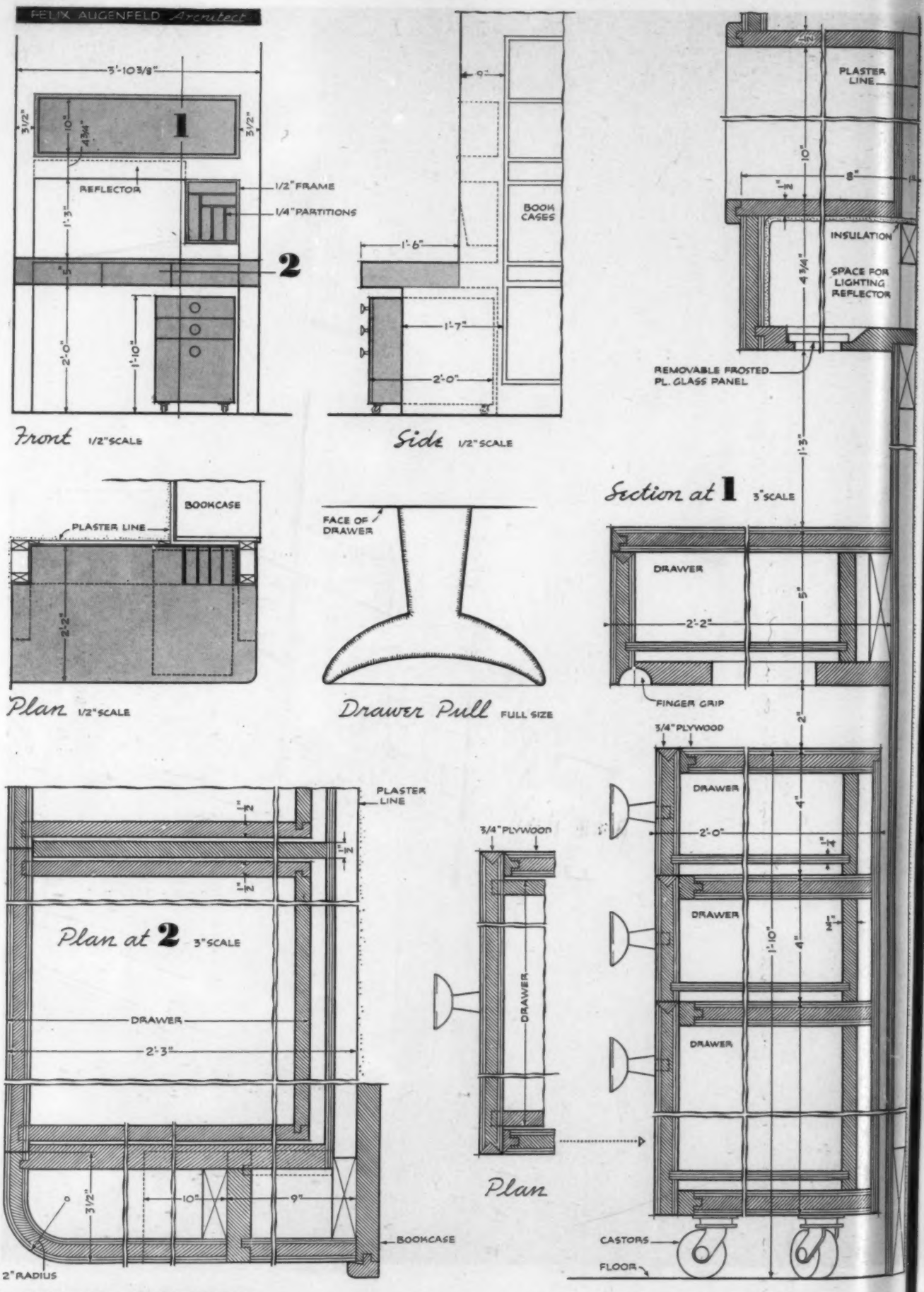
DISPLAY PARTITION

(PHOTO on preceding page)

Rodney McCay Morgan

STUDY CORNER *(DETAILS on next page)*

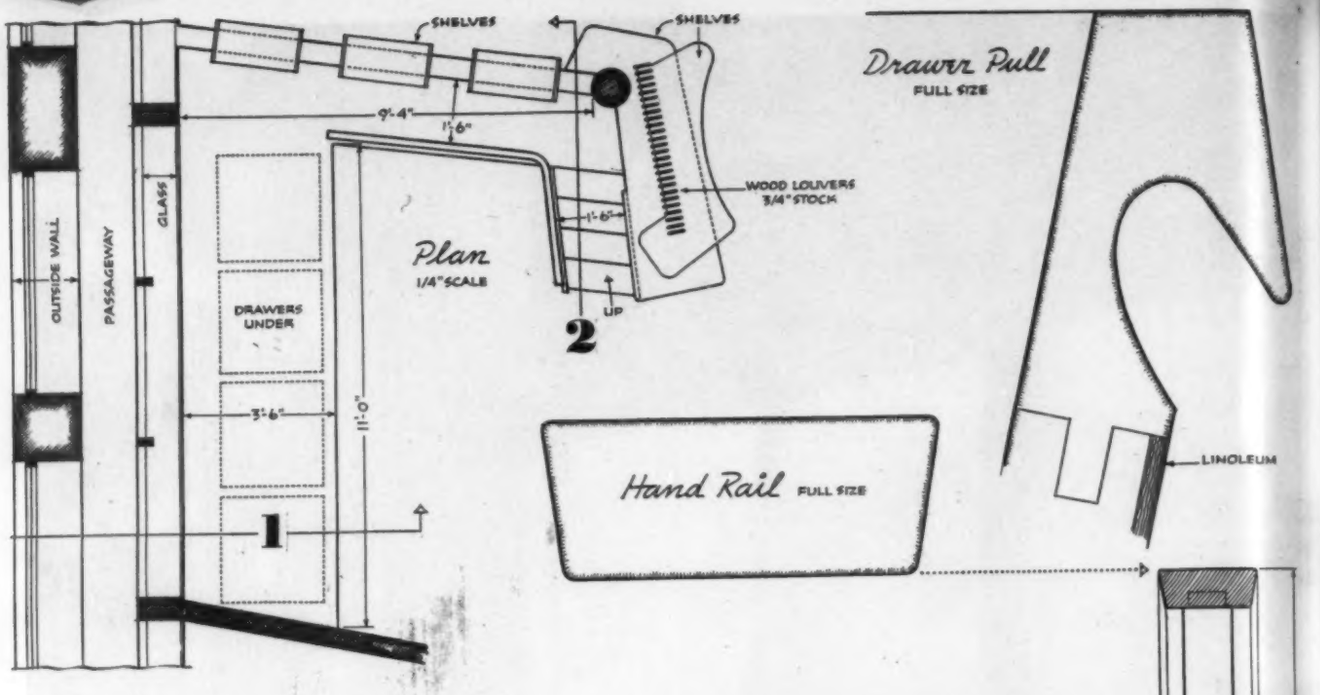
FELIX AUGENFELD, Architect

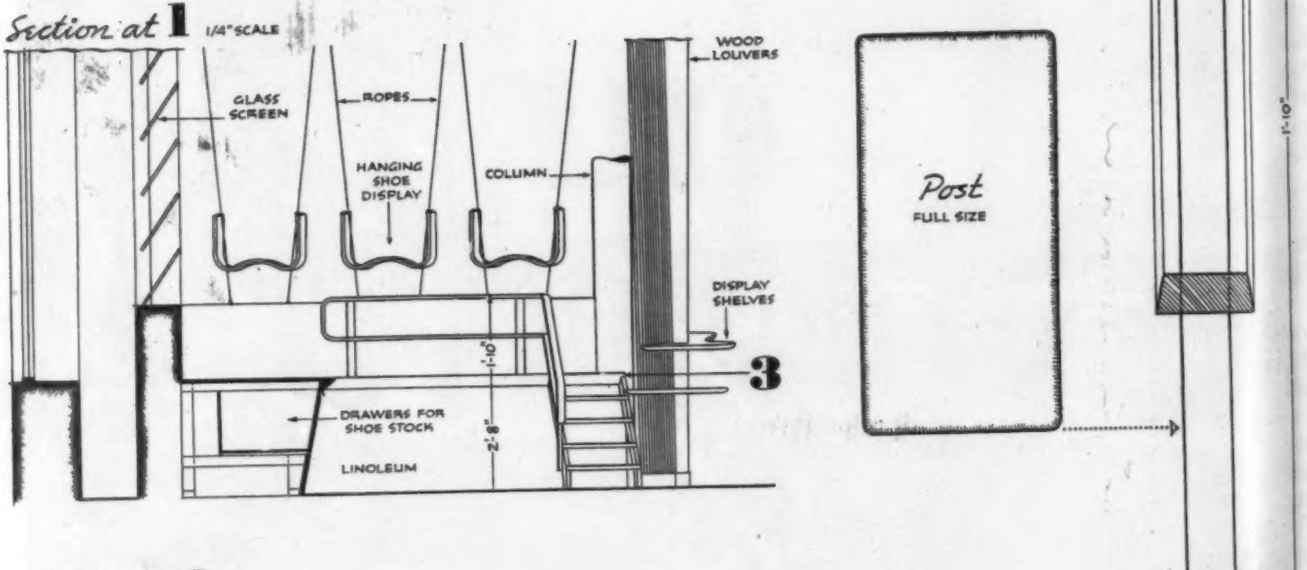


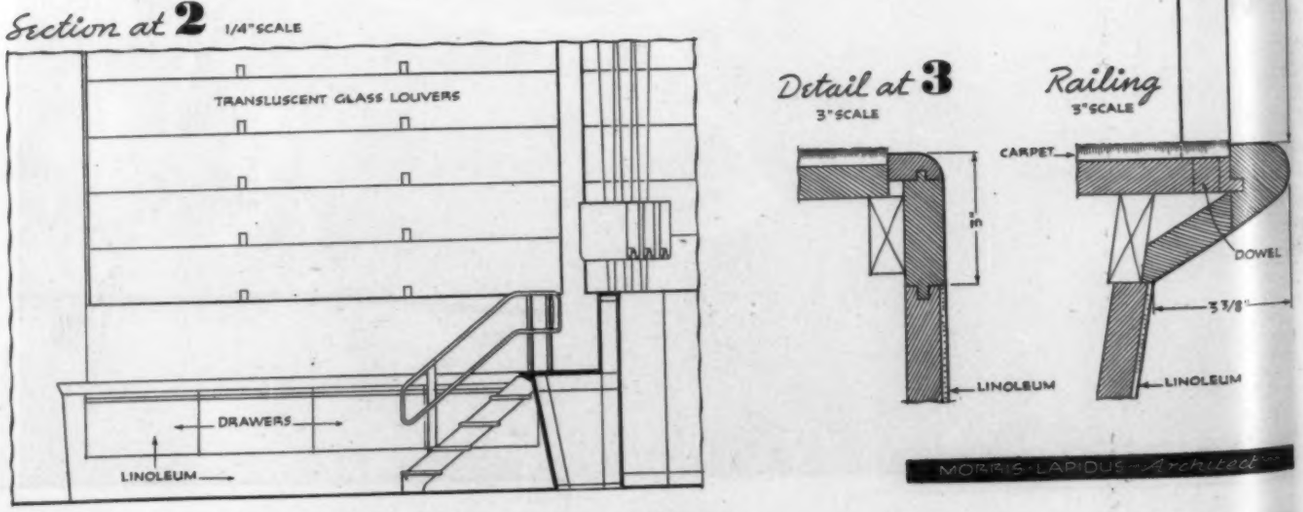
STUDY CORNER *(PHOTO on preceding page)*

Gottscho-Schleisner

CHILDREN'S SHOE SALES UNIT *(DETAILS on next page)* MORRIS LAPIDUS, Architect







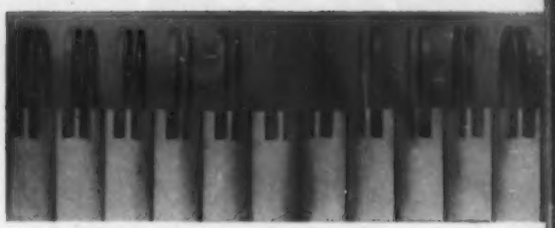
CHILDREN'S SHOE SALES UNIT *(PHOTO on preceding page)*

MOBILAR STRUCTURES

KONRAD WACHSMANN invents a structural system employing standardized tubular structural members and movable walls

The search for the most economical method of construction is more essential now, in a period of complex mechanical development, than it was in the past. We in America learned that even before the late hostilities began. We are learning it again as we reconvert to peaceful pursuits: building materials are scarce; our normal activities are cramped by existing fixed enclosures and by column spacings designed for alien purposes; new construction is costly.

Konrad Wachsmann, architect, inventor of "The Packaged House" (see New Pencil Points, April 1943), founder and now president of the General Panel Corporation, was in Grenoble, France, in the winter of 1938. Dissatisfied with current methods of utilizing materials to span large floor areas and wall them in, he there conceived the basis for Mobilar construction. The system has two parts: standardized framing members consisting of steel tubes of constant outside diameter with simple connectors welded to both ends; and mobile wall panels which can be detached from or secured to the structure at will. For the last year and a half Mr. Wachsmann and two partners, Charles and Albert Wohlstetter, have had a force of engineers and designers at work perfecting the system, under the aegis of Atlas Aircraft Products Corp. Paul Weidlinger, brilliant young engineer who has been, among other things, Chief Engineer for a department of the Bolivian Government, was in full charge of engineering development. The system has been carefully checked by independent engineers.



STRUCTURAL ELEMENT

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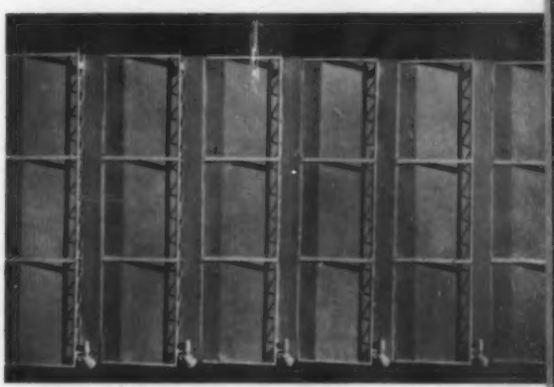
MOVABLE WALLS



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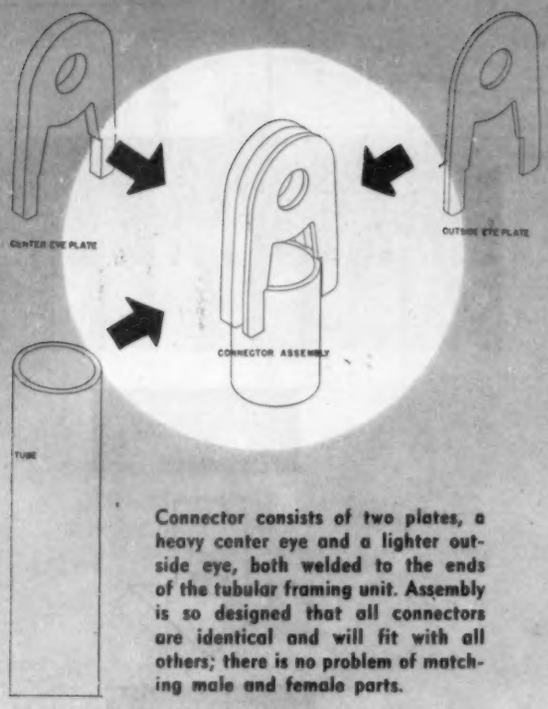
MOBILAR STRUCTURES

Patents pending on Mobilar Structures and all components.

Photos by ANNA WACHSMANN



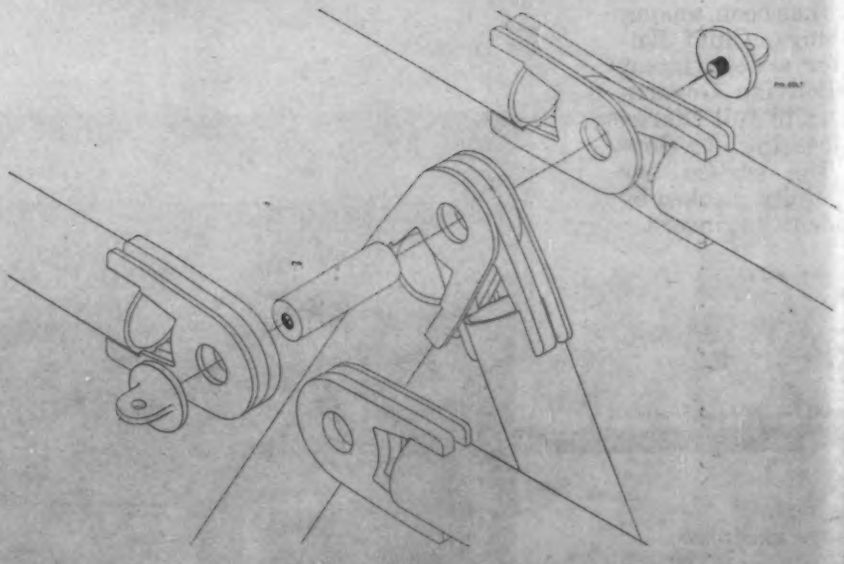
Connector consists of two plates, a heavy center eye and a lighter outside eye, both welded to the ends of the tubular framing unit. Assembly is so designed that all connectors are identical and will fit with all others; there is no problem of matching male and female parts.

MOBILAR CONNECTORS

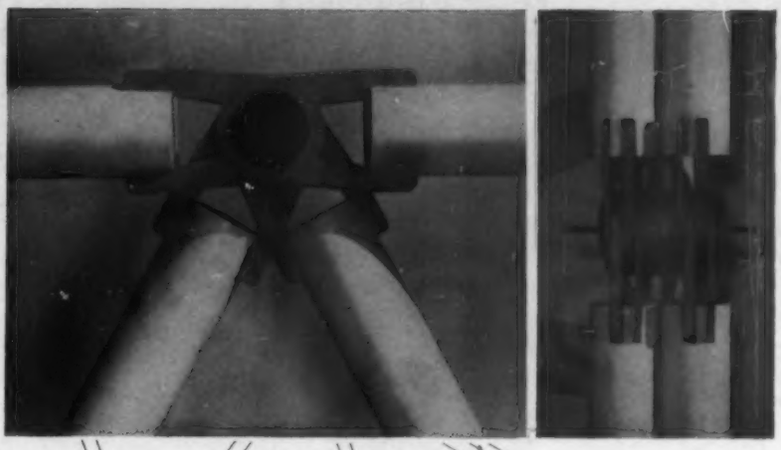
Tubular members were chosen as the basis of Mobilar construction because the tubular shape is extremely efficient; a comparatively thin-walled tube will withstand great compressive stress. The design problem centered around a new type of connector; neither threaded nor welded joints met requirements.

In designing the system, the aims were to obtain a structural element of standardized size and shape, with a high strength-to-weight ratio, capable of being assembled, erected, or disassembled simply with a reasonable minimum of technically skilled labor, and of such nature that comparatively few mass-produced types would be required to erect even a very complex structure. From an engineering standpoint there appear to be no limitations on the shape or size of structures built of Mobilar units.

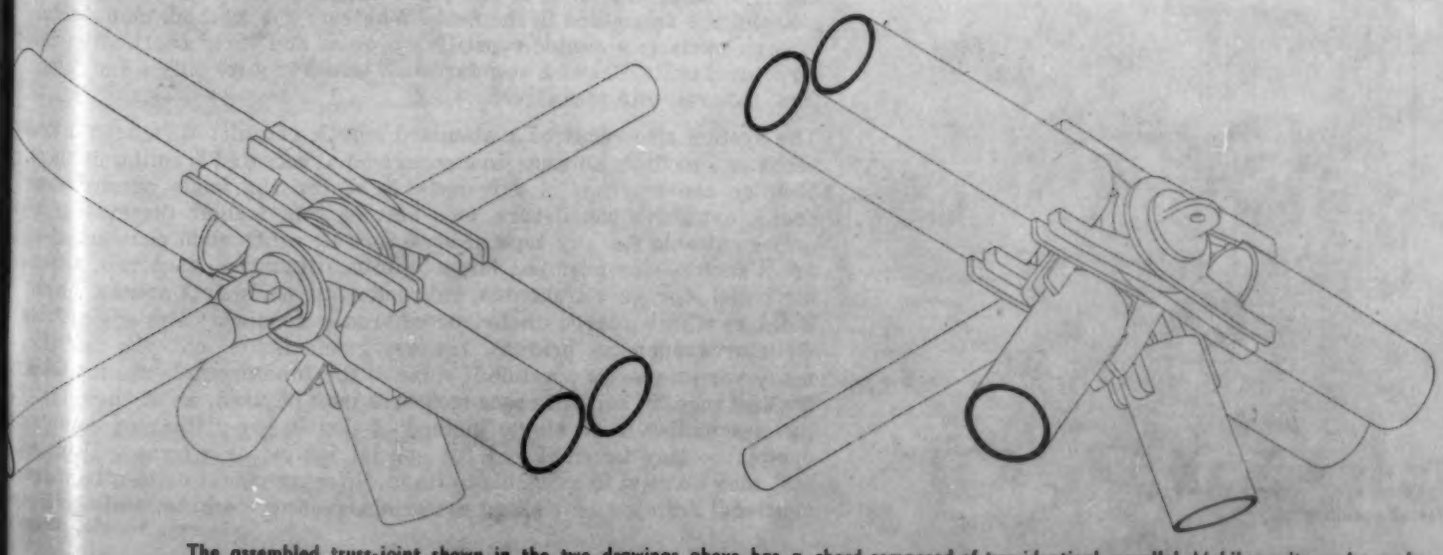
Connectors are so placed that inner face of "center" eye is on diameter of tube; this causes stresses to be transmitted directly along the tube's axis, eliminating eccentric loads.



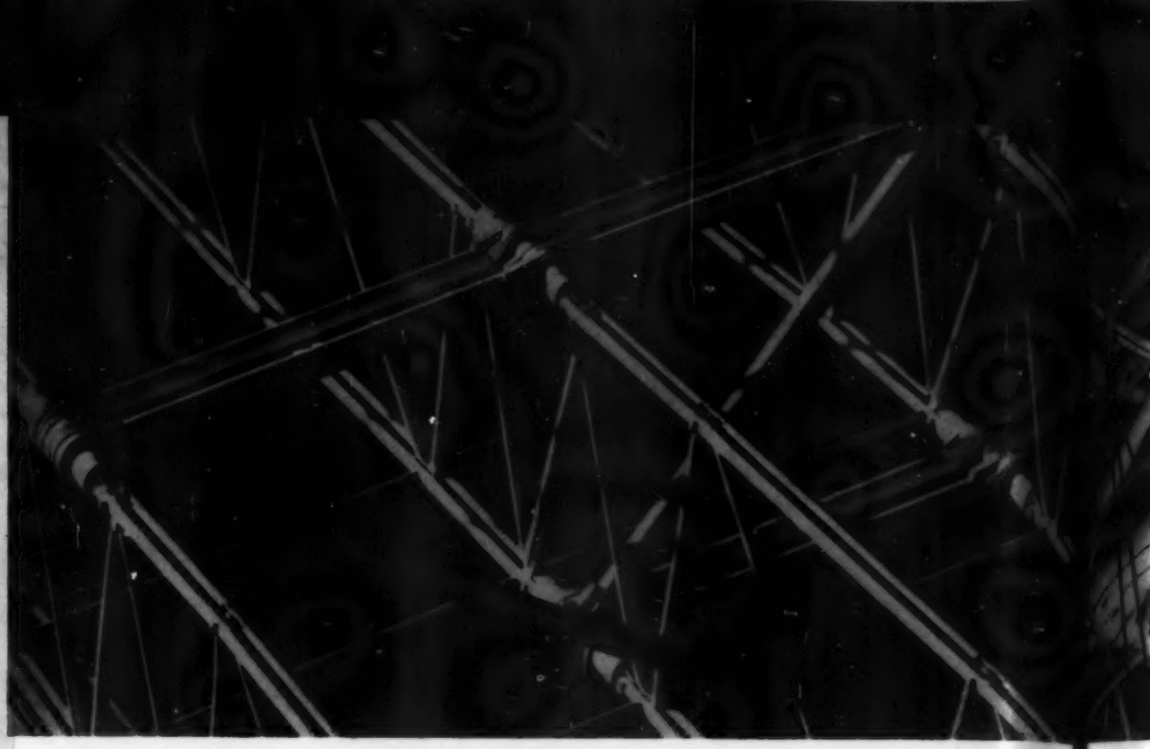
Pin-connected assembly allows wide choice of geometric shape of trusses. Pins act as beams held in equilibrium by uniformly distributed loads of varying intensities, transmit increment of stresses from one truss member to the next. Joints symmetrical in the plane of the truss, as above, are desirable to produce symmetrical pin loading.



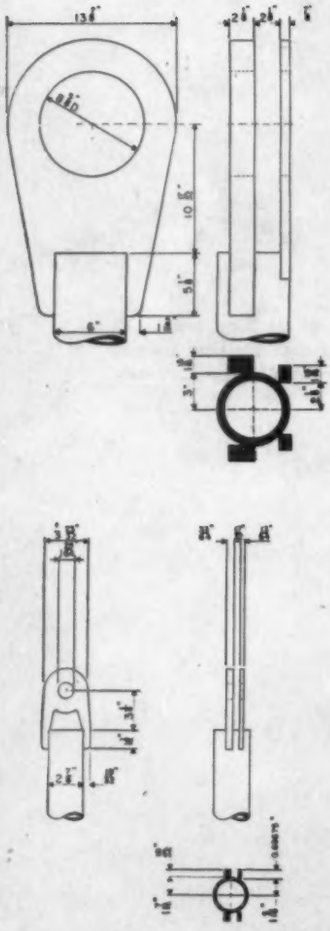
An assembly of Mobilar trusses as they might be used for floor framing or roof purlins, with bridging between.



The assembled truss-joint shown in the two drawings above has a chord composed of two identical, parallel, Mobilar units; web members are single units of the same outer diameter. Additional strength is provided where needed by thickening the wall of the tube rather than by increasing its diameter. Eyes in bolts at ends of joint pins are for attachment of other materials to the structure; for example, the bridging pieces shown at left above.



Photographs of a scale model of a Mobilar assembly show heavy main trusses, with chords consisting of two, three, or more large-diameter tubes, and lighter purlin trusses. At present, tubes of two outside diameters, 2⅞ in. and 6 in., appear to satisfy all conditions; further refinements may lead to adoption of a single diameter for all purposes. Note that main truss-joint pins become integral parts of purlin truss chords, that purlin trusses thus literally pass through main trusses.



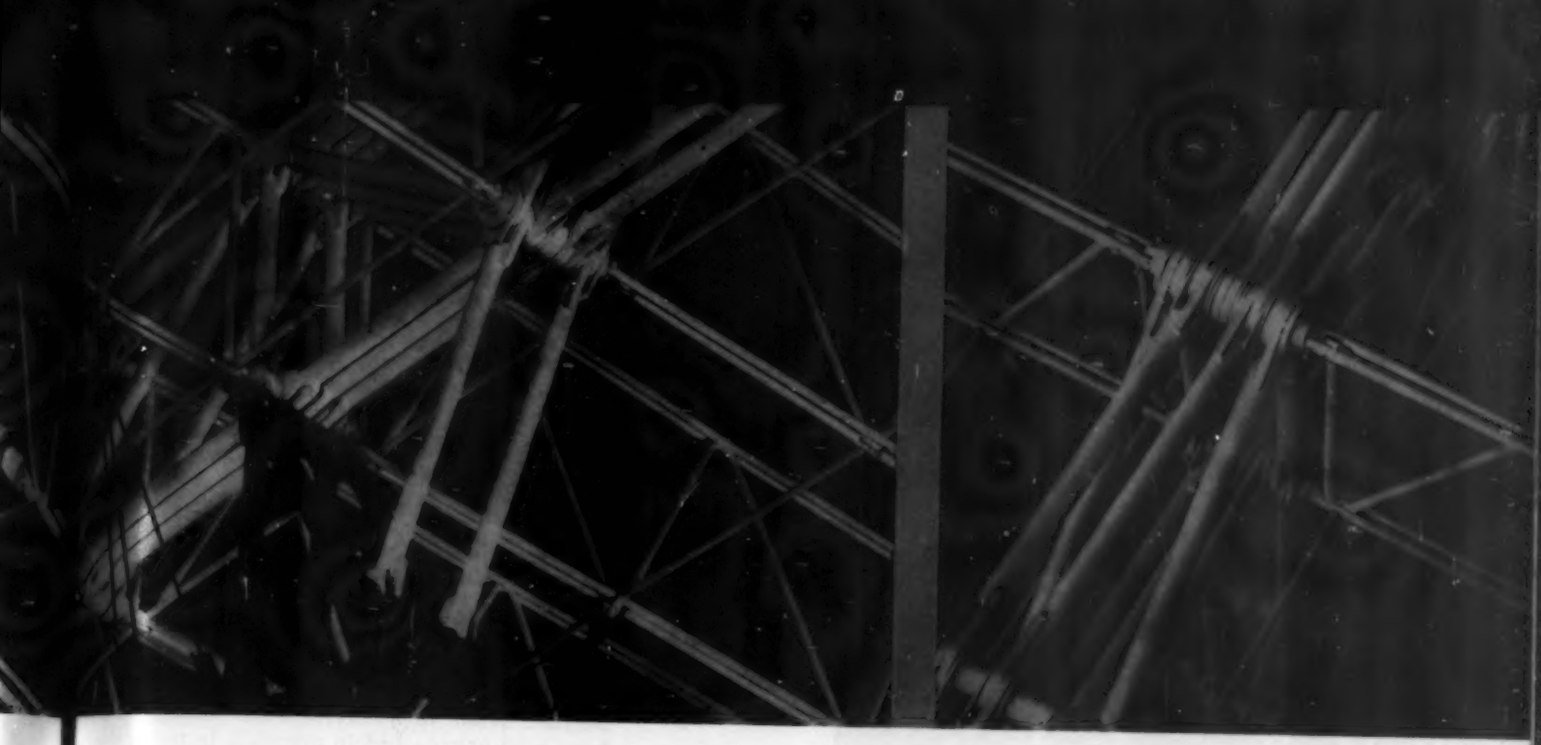
Two of several variations possible in design of connectors for different conditions.

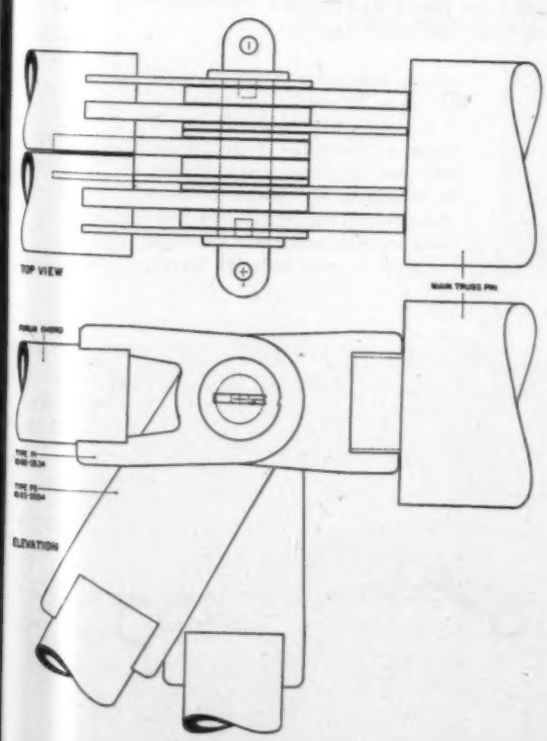
MOBILAR CONSTRUCTION

The use in Mobilar construction of tubes in one or two constant outer diameters (with varying tube wall thickness for varying stresses) permits the use of standard types of connector eye-plates, secured with standard welds to members having varying properties. Furthermore, wherever the wall thickness of a member cannot be increased to transmit the required load, it can be reinforced with similar, parallel members (see drawings and photographs on these and preceding pages). Such a design approach implies a high degree of standardization in both manufacture of the elements and their actual use in construction.

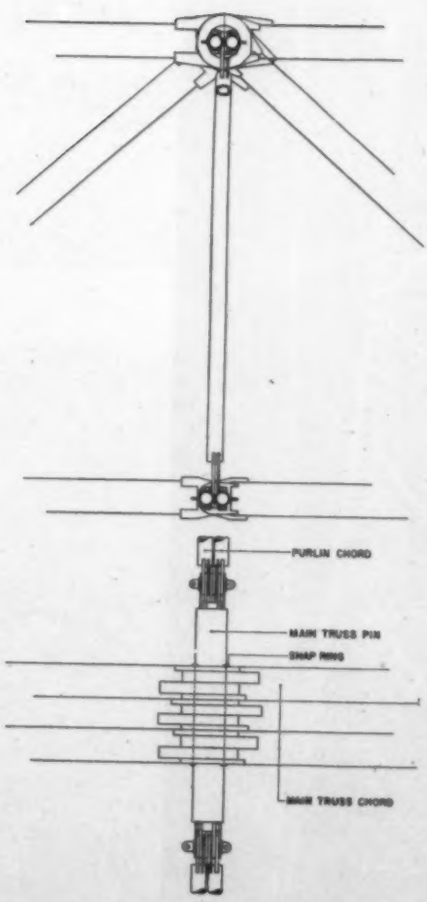
In practice, the connectors might be die-stamped or forged; assembly of structural units from a length of tubing and two pairs of connectors might be done in a shop, or the parts might be stocked, shipped to the job, and pre-assembled in the field. Whatever the method, manufacture of such parts is a simple repetitive process and their fabrication into structural units, likewise standardized, would require only a few simple jigs, fixtures, and techniques.

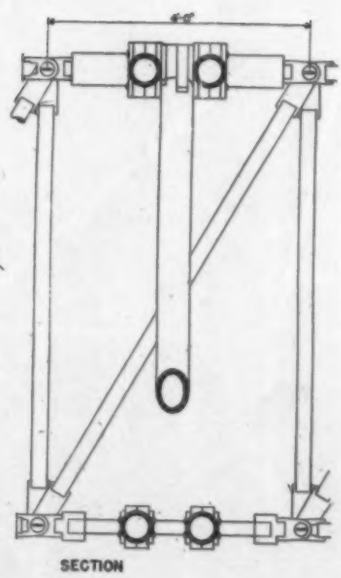
The system also requires a standard length of unit: 8 ft, which thus becomes a module. Because, in comparison to accepted framing methods, Mobilar construction is extremely light for the loads carried, long spans, extensive cantilevers, etc., become practicable; the system becomes suitable for any type of structure in which such considerations are a factor—for example, large buildings, hangars, factories, assembly halls, storage warehouses, railroad stations, sports arenas, or any building where a large unobstructed area is required; also engineering structures such as bridges, towers, grandstands, etc. In addition, many variations are possible if some of the fundamentals are modified; for instance, in certain cases members may be used, as at the ends of pin assemblies, with single instead of double eye-plates; or eccentric eye-plates may be employed for special joints; or stirrups, U-plates, etc., may be used to assemble units in differing planes or to attach conventional framing or walling materials, roofing, decking, and the like.



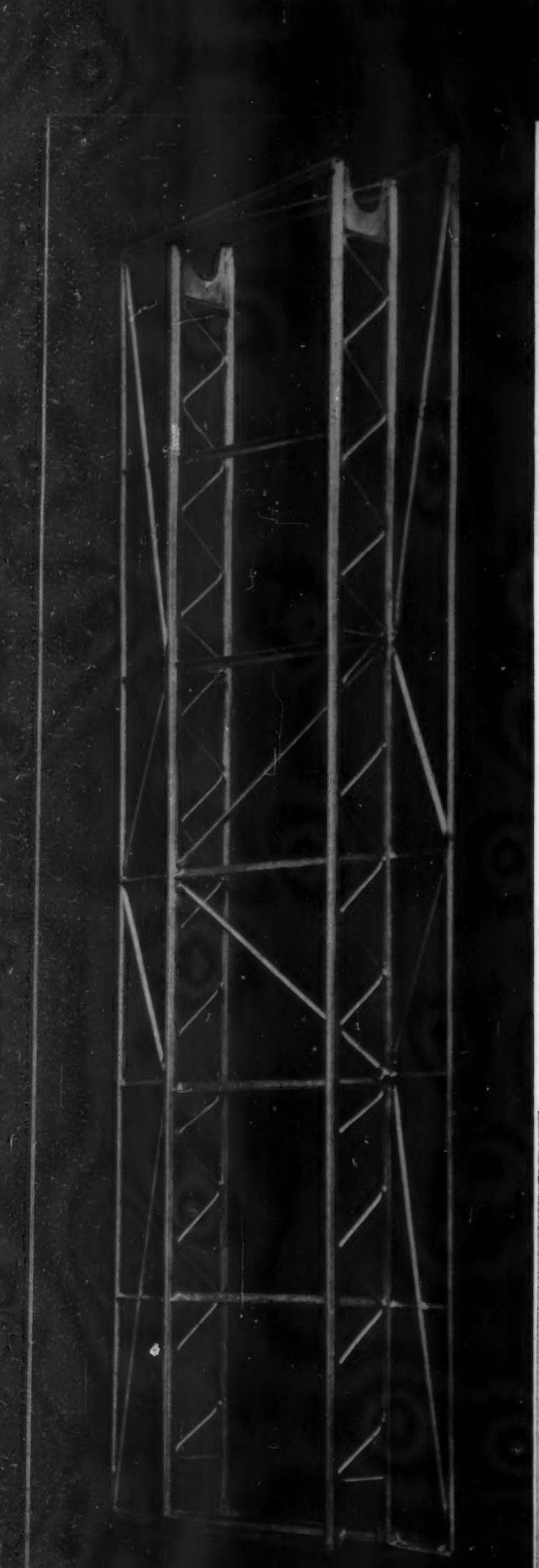


Top and side elevations of a joint of the heavy main truss (see photograph of model) show it to be no more complex in principle than the joint of a light truss which appears on preceding pages. Also demonstrated is the method of joining tubing of different diameters.



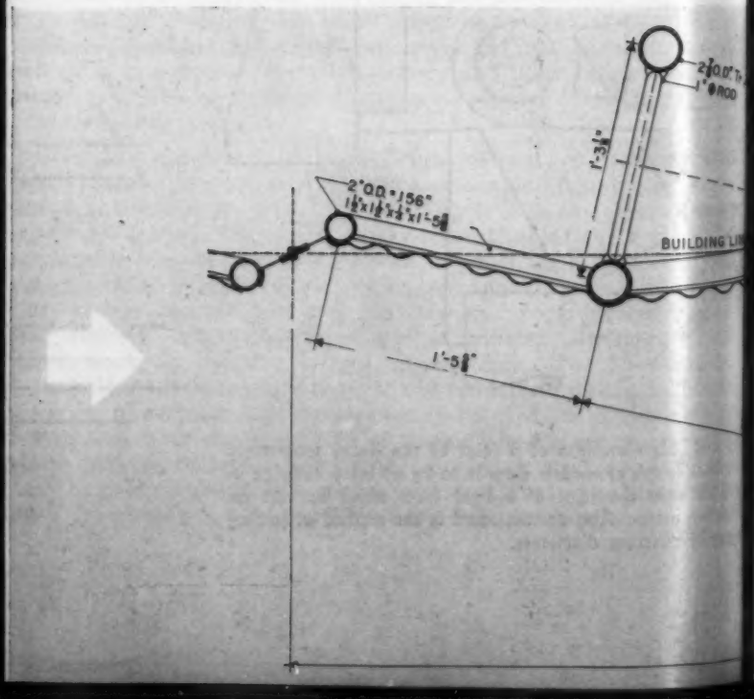


Plan, elevation, and section at the intersection of main and purlin trusses show the joint detailed above used in an assembly.

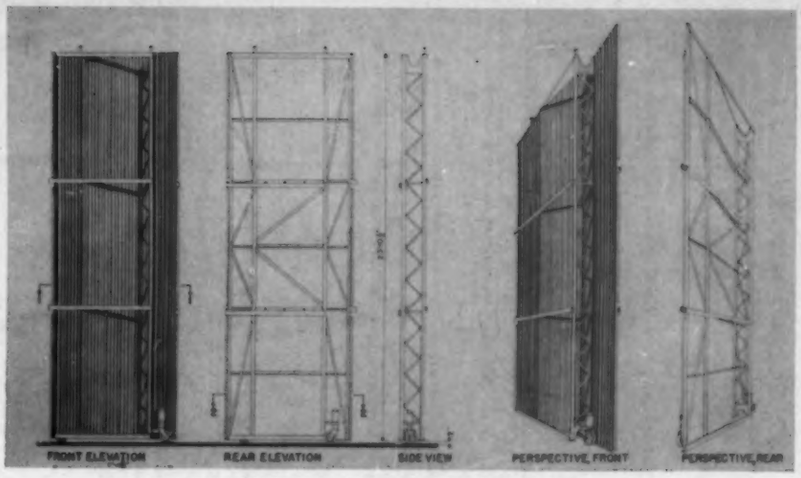


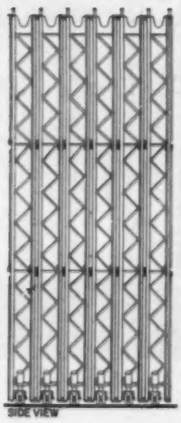
MOBILAR WALLS

The walls which enclose and complete Mobilar Structures are, like the structural system, a departure from the conventional, although they have been approached in principle in many door-assemblies, notably for hangars. But no such approach has yet completely solved the problems of mobility, of expanding or contracting openings at will even to the extent of complete removal of walls, or of storing the opened wall sections. Because the Mobilar structural system, as previously explained, is so light, columns can be placed well back from the exterior of a building. The Mobilar wall unit in turn contributes to the lightness of the framing because it is vertically self-supporting, is not hung from the roof, and transmits only horizontal wind loads to the roof trusses. When in place, the units are rigidly interlocked with one another and with the roof; yet they are easily disengaged and moved away to a storage place which may be completely independent of the building.

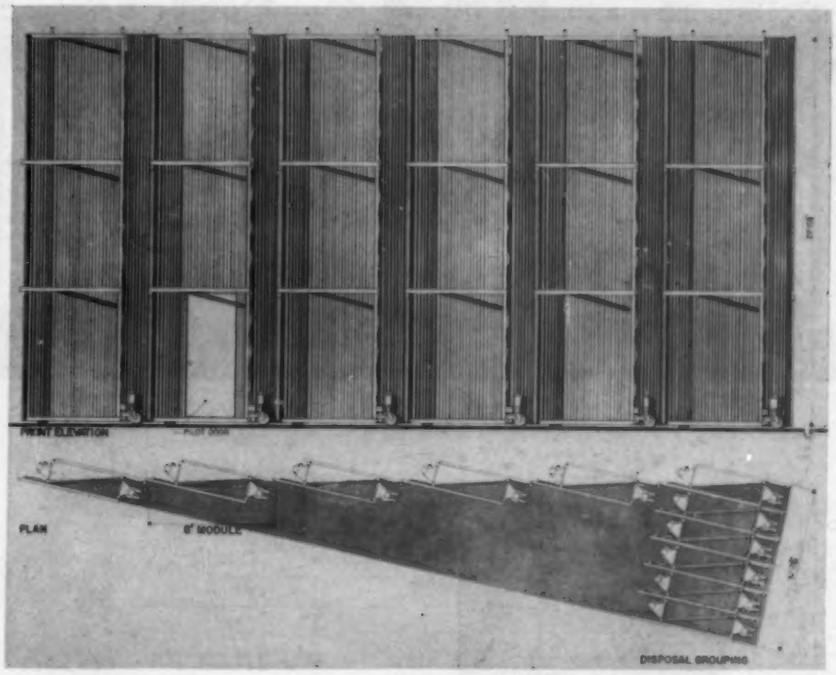


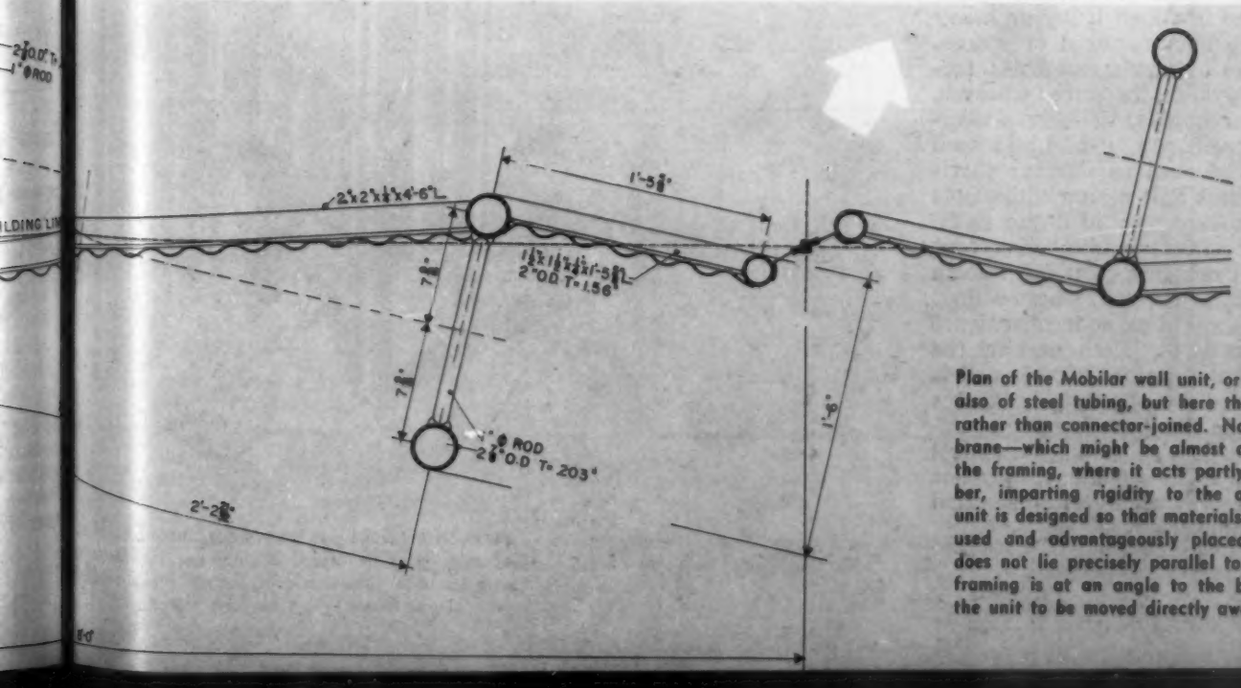
The photo on the facing page shows the frame of a single wall unit; at right is the complete unit. Dimensions at present derive from practical considerations; 8-ft width is the maximum for highway transportation; 24-ft height is suitable for hangar construction. Size can be varied as needed. Units can be turned upside down, location of wheels and motor changed to suit any building requirements. Unit can be laid flat, mounted on a dolly, hitched to a power unit, loaded (as a trailer) with other building parts for transport to building site.



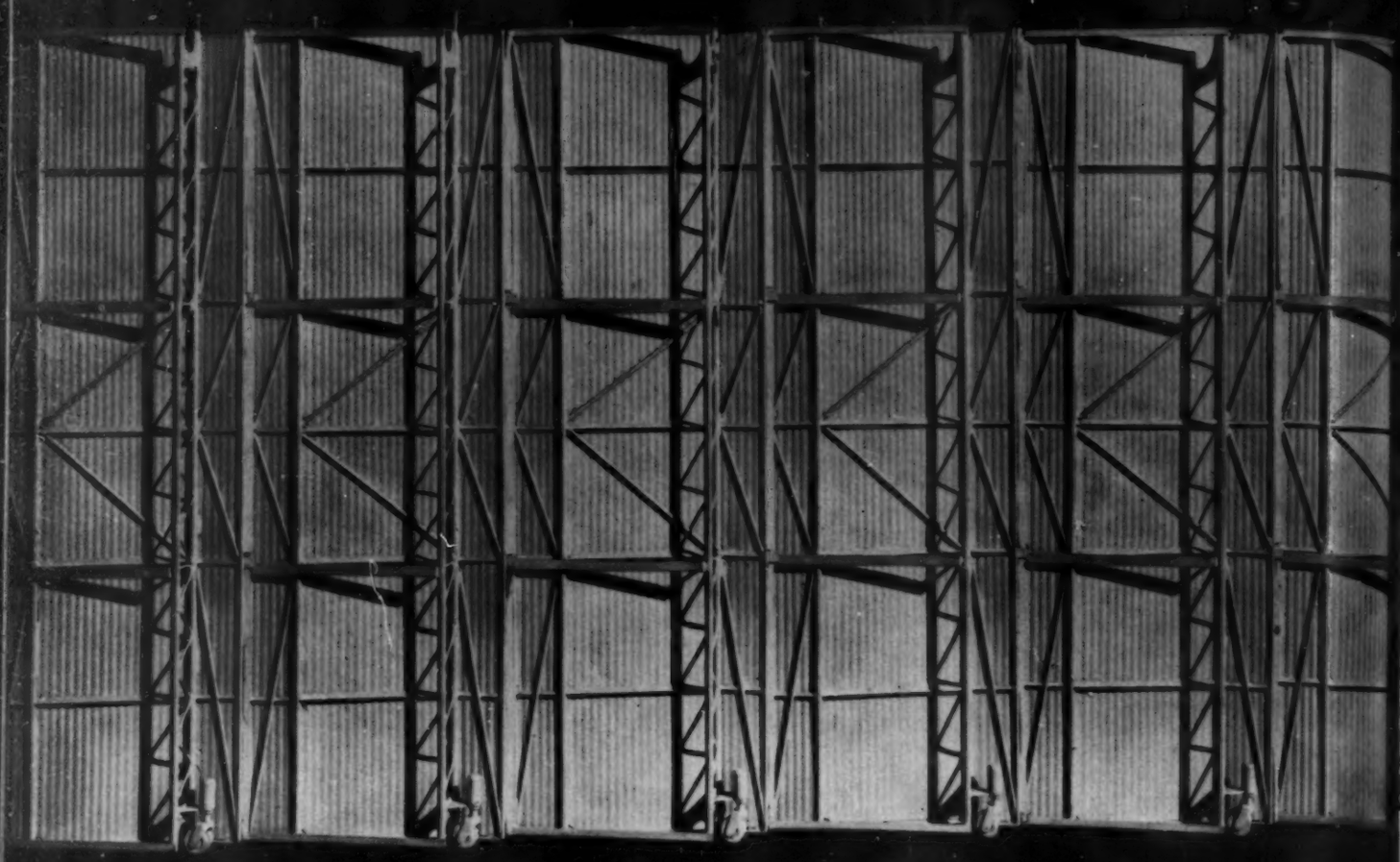


Each wall unit is mounted on two sets of wheels (lowered when the unit is to move, raised when it is placed as a wall) with a small electric motor powered from the building supply. In groups of at least four, preferably six or more, units will stand alone, can be completely detached from building.



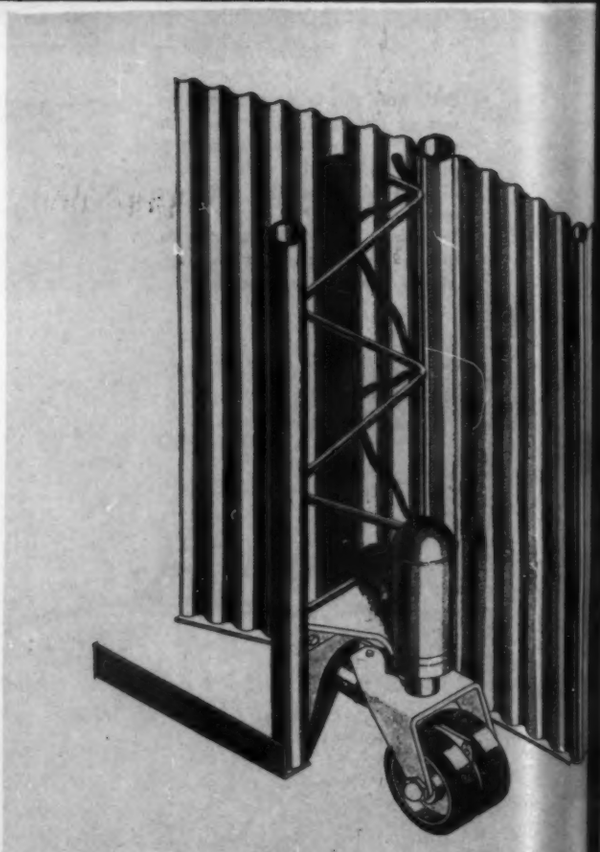


Plan of the Mobilar wall unit, or "door," shows framing also of steel tubing, but here the members are welded rather than connector-joined. Note that the wall membrane—which might be almost any material—is inside the framing, where it acts partly as a structural member, imparting rigidity to the assembly. Because the unit is designed so that materials are most economically used and advantageously placed, the wall membrane does not lie precisely parallel to the building line; the framing is at an angle to the building line to permit the unit to be moved directly away.

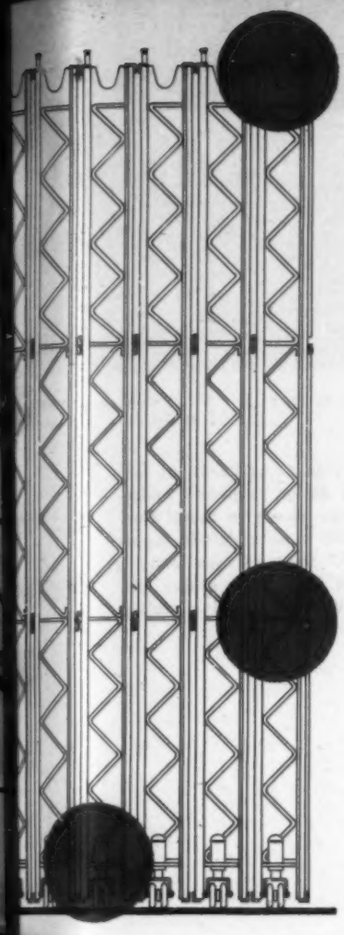


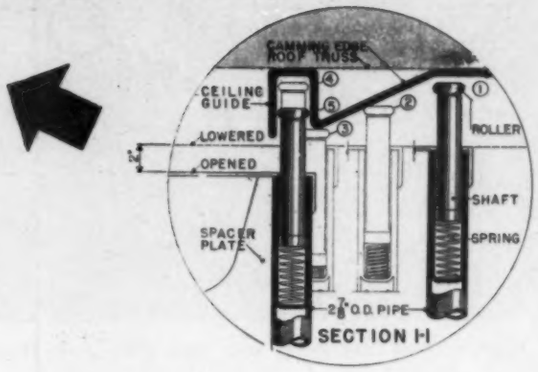
MOBILAR WALLS

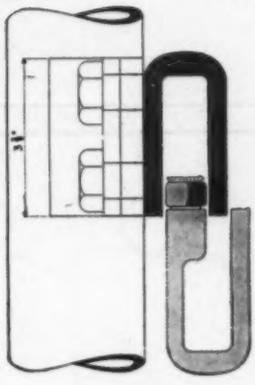
The Mobilar wall is particularly suited to buildings in which bulky or heavy articles are manufactured or stored, or to places of public assembly: factories, shipyards, hangars, wharves, storage warehouses, theaters, assembly halls, armories, etc. Light wall units can be used as interior partitions. Present unit design withstands wind pressures up to 30 lb per sq ft. It requires no floor guides—important not only in reducing costs but also in factories, hangars, etc., where a floor obstruction might cause inconvenience or wear on tires. Each unit of the type illustrated weighs 2000 lb and is easily moved by the 1/3 hp motor contained in its undercarriage. Although each door's push-button control system has many functions, only one relay is needed, wiring is simple and relatively inexpensive.



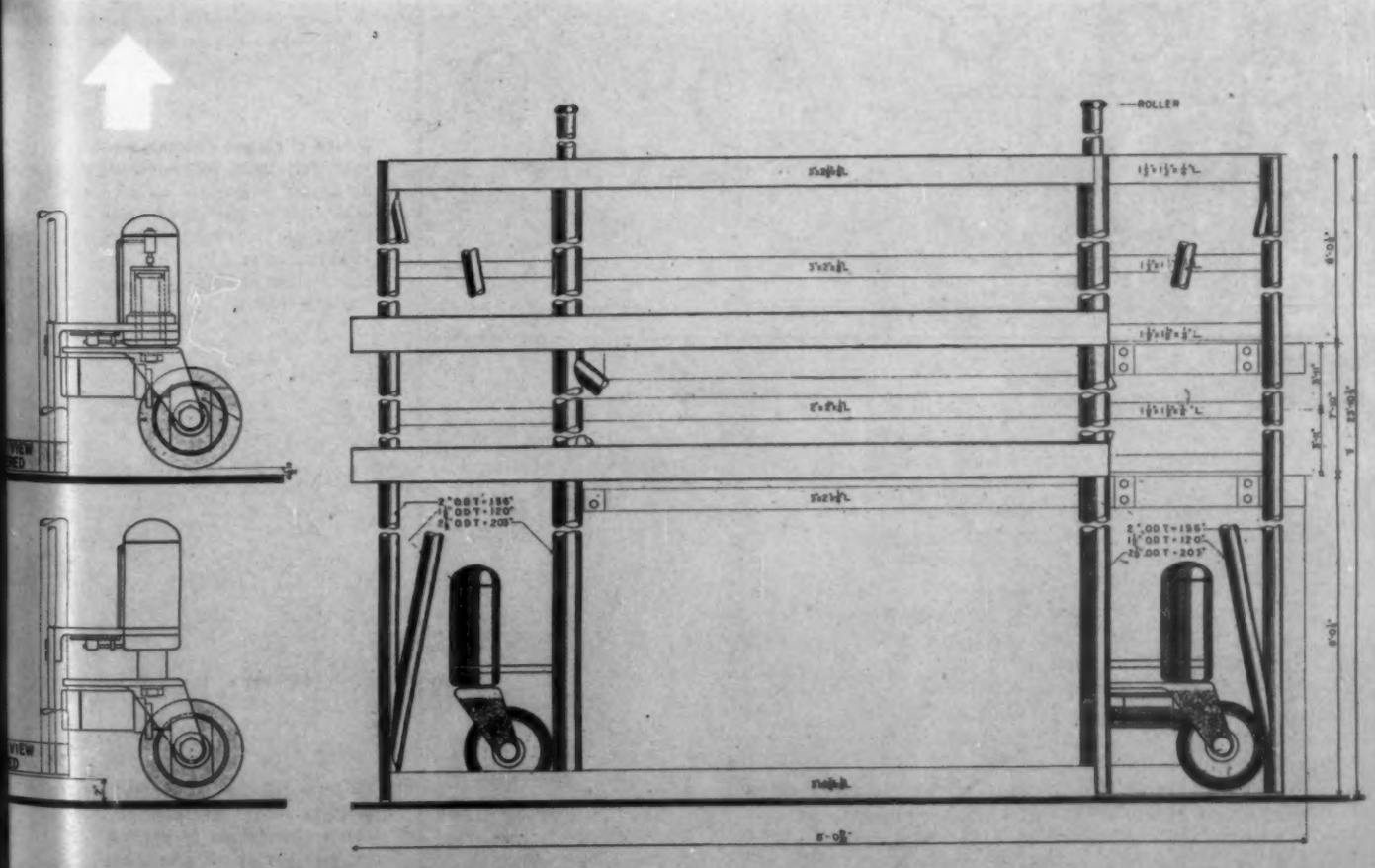
Perspective shows undercarriage assembly. Air operate jacks is stored at approx. 100-lb pres within vertical tubular framing, can be replenished a matically or manually by the drive motor.







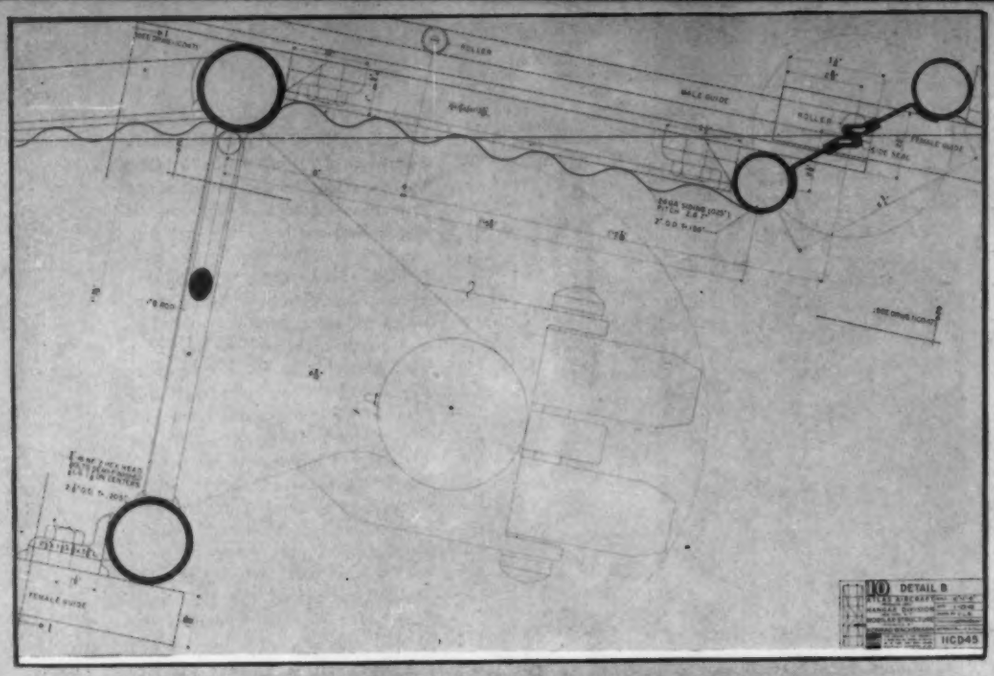
Each unit has a pair of plungers (detail at left) at the top, which engage in a ceiling guide fastened to the structure and so designed that misalignment of the unit is almost impossible. There are also two sets of lateral guides per unit, female on one side, male on the other (see detail), by means of which adjacent units are locked to one another when all or part of a wall assembly is being opened or detached from the building. Depth of both kinds of guides allows for raising and lowering units the necessary 2 inches and for deflection of the structure. When wall is opened, as overhead plungers leave the ceiling guide, lateral guides on the moving unit engage those on the next unit. Prior to this the jacks have raised the first unit; during the first unit's motion the second is being raised, etc. When the last unit is reached the sequence stops. To close, motors are reversed. Power cables run from unit to unit through a group with a single connection to a power outlet. To disengage a group, it is rolled out until plungers disengage from ceiling guides, power connection is broken, undercarriage swivels are unlocked to permit turning, and a tractor can pull the group away.



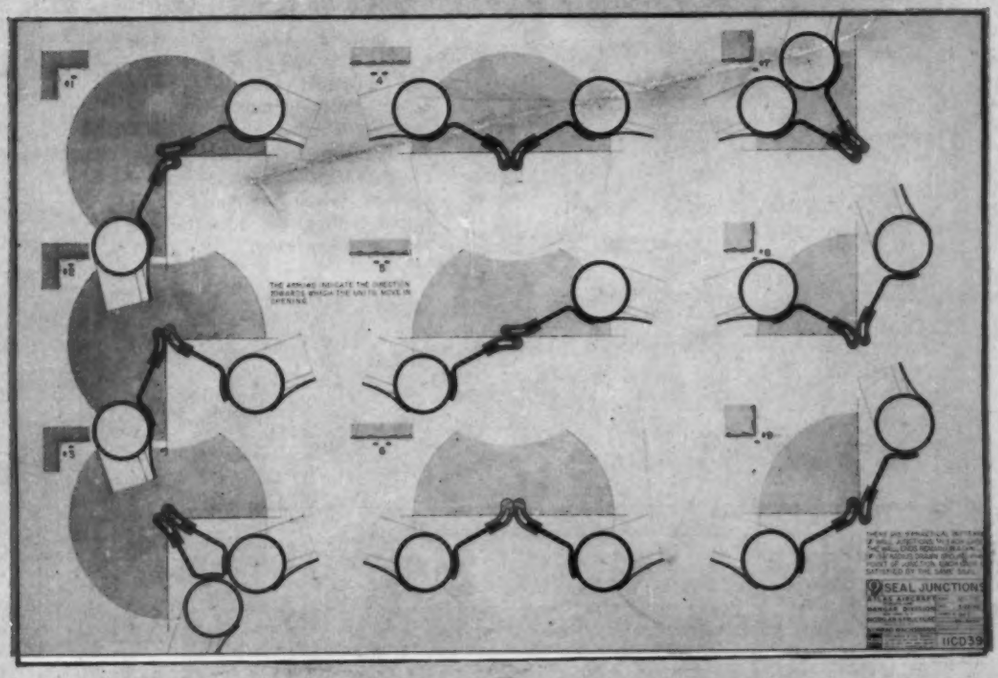
carriage consists of 9-in. rubber-wheels, drive-gear box, motor, uted jack.

Side elevation of frame and undercarriage (2 per unit) shows unit in wall position, wheels raised. Wheels swivel freely while unit is detached from building and moving, lock in proper position while unit is being detached or re-engaged.

MOBILAR WALLS



Part plan of wall unit, at left, shows design to permit undercarriage wheels to swivel freely; also closure details (upper right). Joint between units is sealed by flexible rubber gaskets like those used in trolley-car or bus doors.



Design of closure elements permits wall units to be placed at almost any angle to each other. Diagram shows nine placements for units opening in the same or different directions; intermediate positions are also possible.

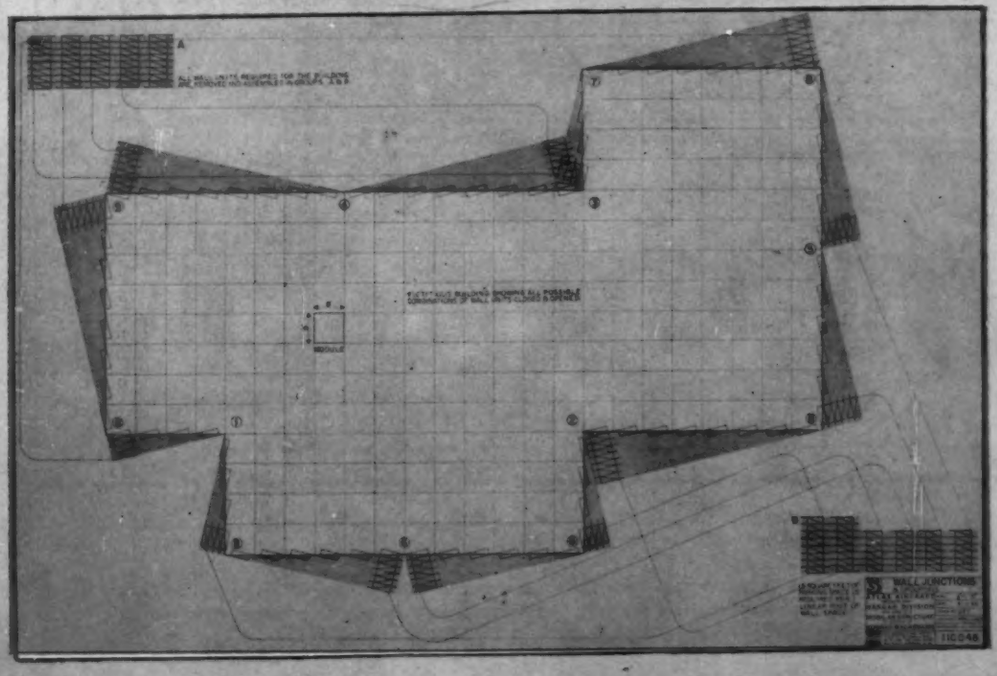
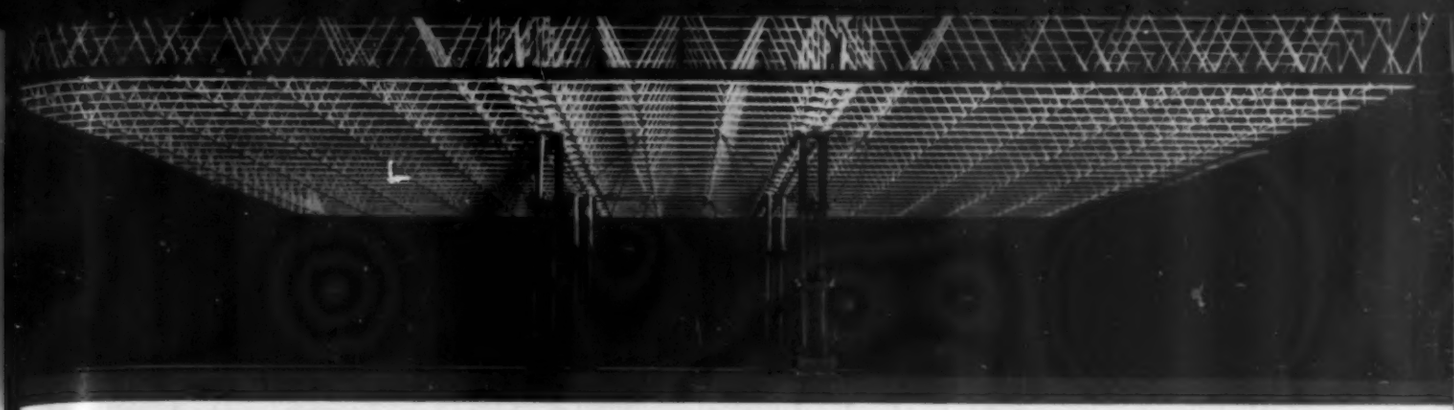
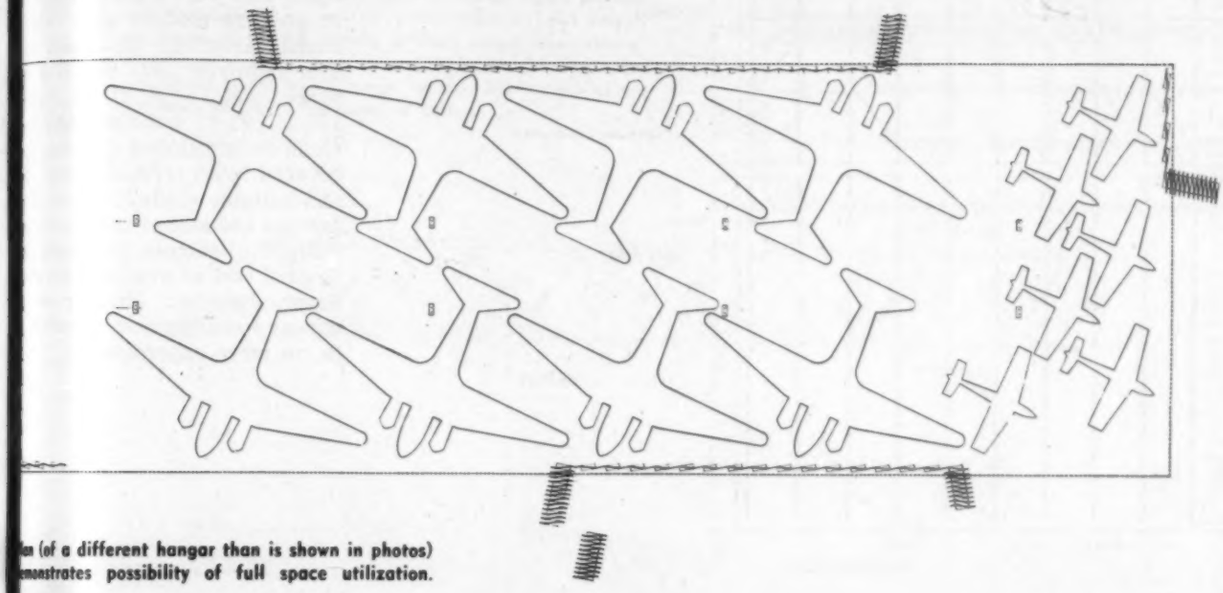


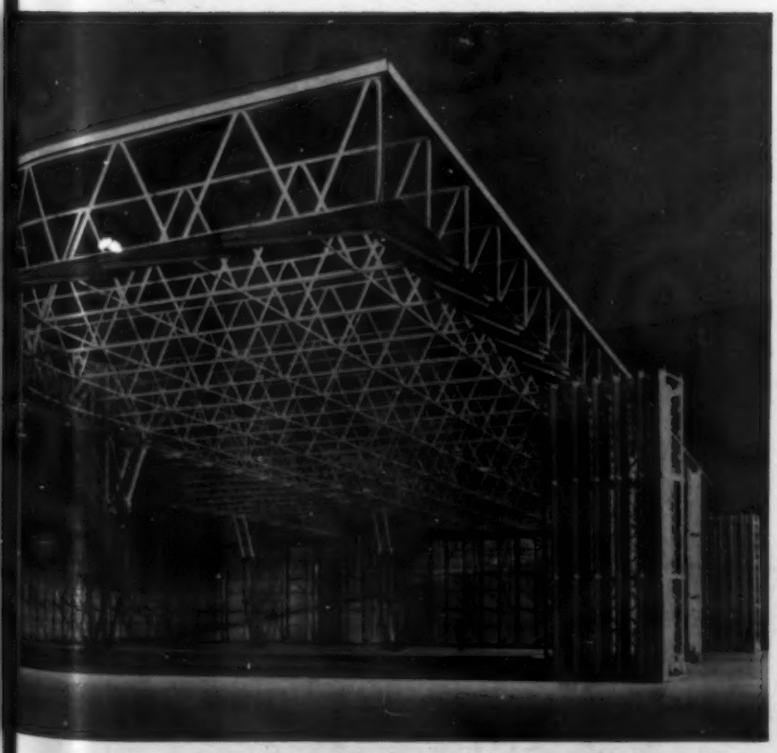
Diagram of a hypothetical building shows how principles shown above might be applied, explains use of all nine types of closures. When removed from building and stored in groups, Mobilar wall units require 1.5 sq ft of parking space for each linear foot of wall.



cale model of Mobilar hangar, wall units removed. Photo below shows same model, walls partially closed. Note the simple method of opening up corner of a Mobilar building.



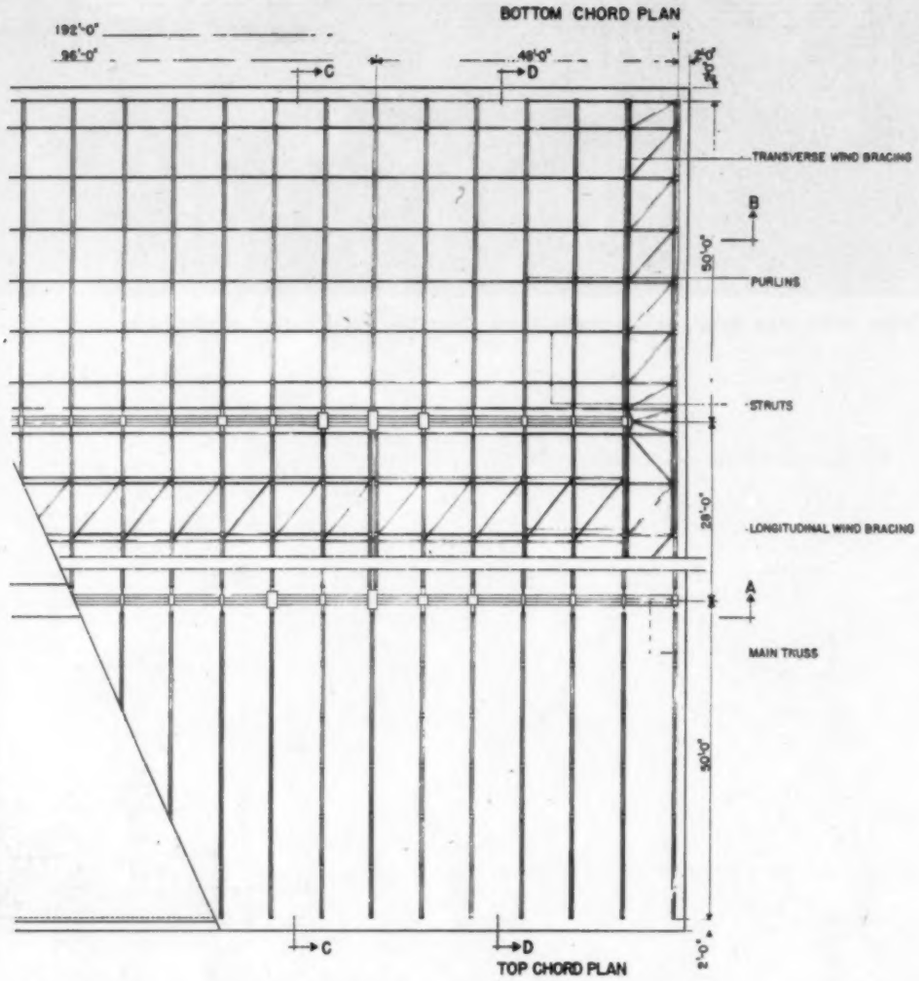
lan (of a different hangar than is shown in photos) emonstrates possibility of full space utilization.



MOBILAR STRUCTURES

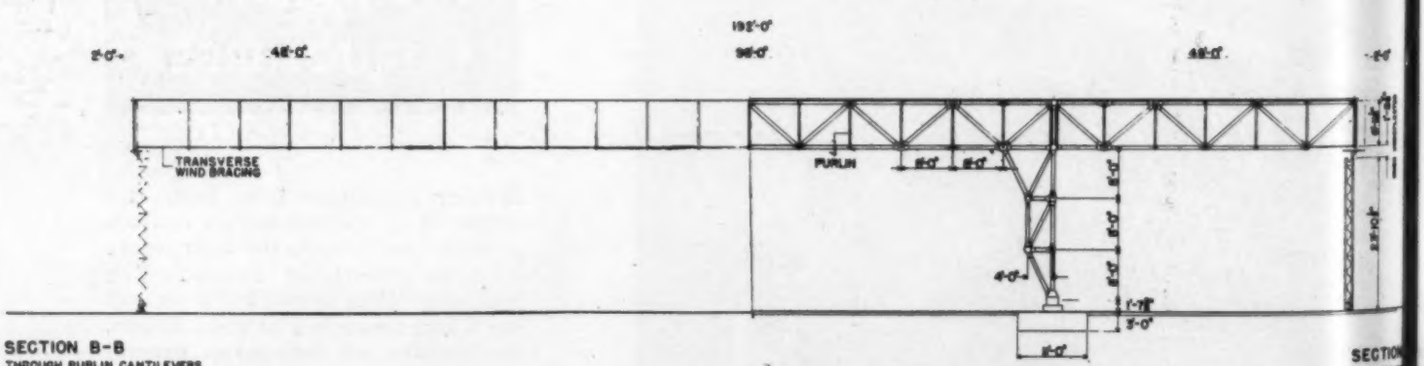
Mobilar principles have been employed in a building design deliberately devised to make the most severe demands upon the system. The hangar building selected utilizes wall units and connectors to the ultimate, incorporates all foreseeable general and detail problems, and permits design innovations obtainable only with Mobilar construction. The basic unit consists of a pair of 2-hinged frames which have center spans of 96 ft and 48-ft cantilevers at both sides. The frames are 96 ft apart, and support transverse purlin trusses spaced 8 ft o.c., each with a 96-ft center span and a 48-ft cantilever at each side. Of several plan variations, one was completely analyzed.

MOBILAR STRUCTURES

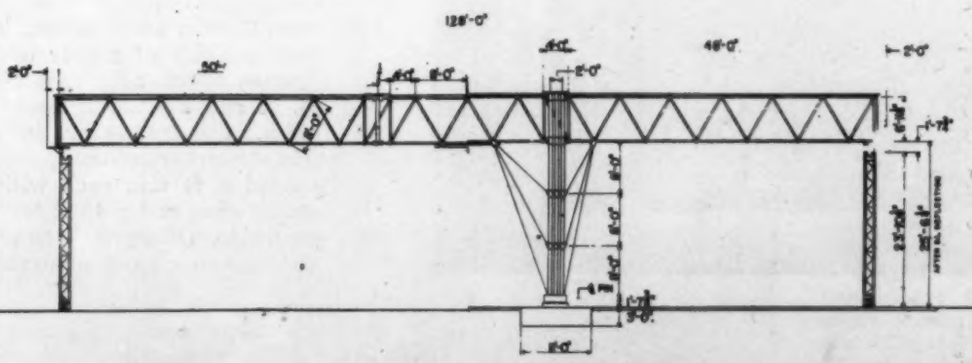


Variation completely analyzed had main frames 28 ft apart; this minimum practical spacing incorporates problems not otherwise encountered.

Structure is designed for dead plus snow or live load of 30 l sq ft, and 15 lb wind load on ve surfaces, also to withstand tem ture-induced stress. Emergency code is basis for structural ste sign. The 8-ft structural unit r in an 8-ft module upon whic based variations developed to The required four columns e spaced out to 96 ft o.c.; resu 192 x 192 ft building may be alone or multiplied at will. R covered with ribbed steel de and suitable roofing. Costs of facture and sale of such items a units, for example, have been ch against cost of available hanga doors. Results: Mobilar wall appear to be cheaper, certainly be no more expensive.



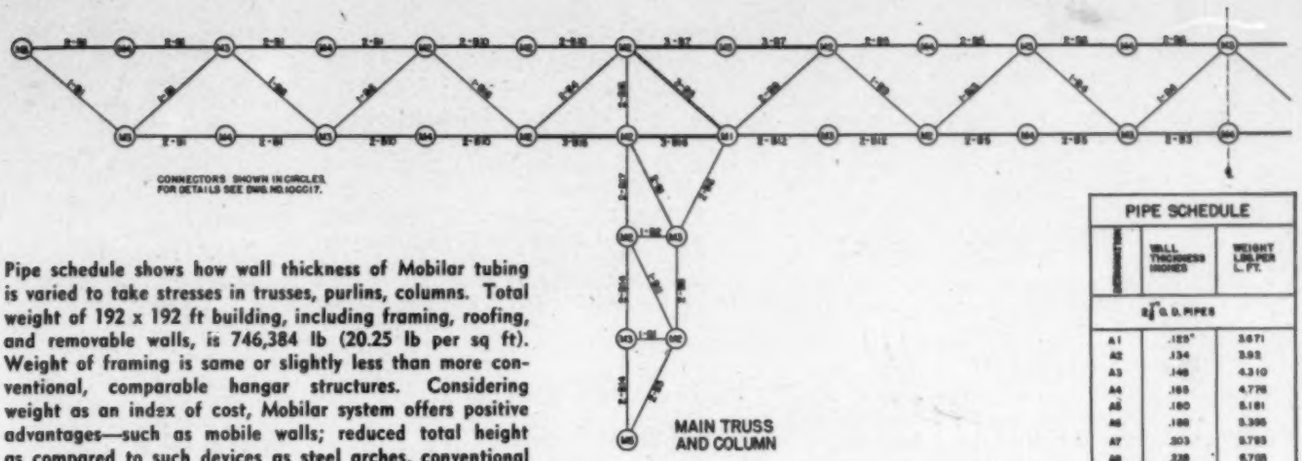
SECTION B-B
THROUGH PURLIN CANTILEVERS



SECTION D-D
TYPICAL PURLIN

Structure analyzed 128 x 192 ft c-to-c outer framing, requir 80 wall units, has meta framed windows set truss depth above w units, can be modifi at will after erection.

SECTION C-C
PURLIN AT COLUMNS



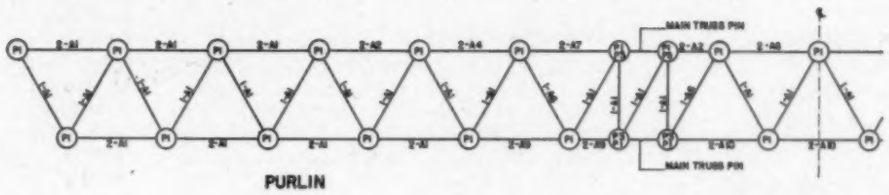
CONNECTORS SHOWN IN CIRCLES. FOR DETAILS SEE DWG. NO. 10CC17.

MAIN TRUSS AND COLUMN

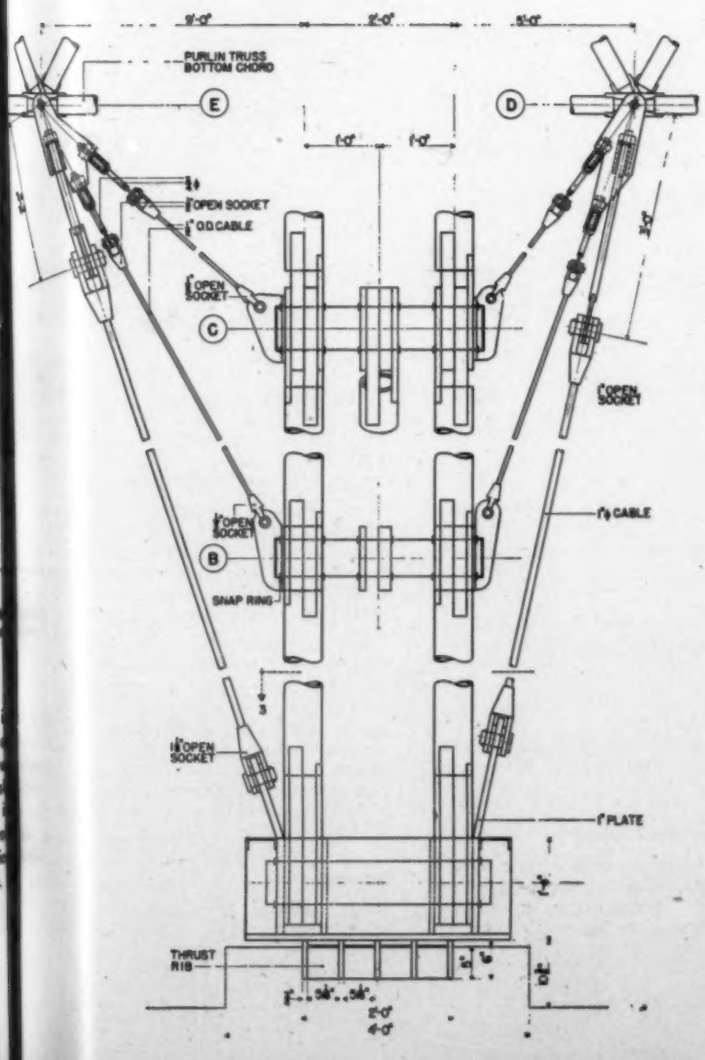
Pipe schedule shows how wall thickness of Mobilar tubing is varied to take stresses in trusses, purlins, columns. Total weight of 192 x 192 ft building, including framing, roofing, and removable walls, is 746,384 lb (20.25 lb per sq ft). Weight of framing is same or slightly less than more conventional, comparable hangar structures. Considering weight as an index of cost, Mobilar system offers positive advantages—such as mobile walls; reduced total height as compared to such devices as steel arches, conventional trusses, etc., for a given clear interior height and span (increased height makes longer runways necessary)—at no increase, possibly a decrease, in cost.

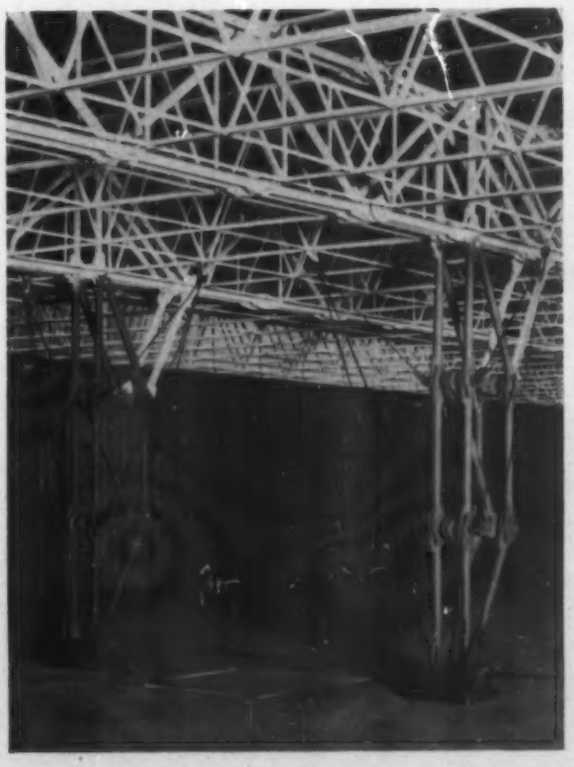
PIPE SCHEDULE

DESIGNATION	WALL THICKNESS INCHES	WEIGHT LBS. PER L. FT.
2½" O.D. PIPES		
A1	.125*	3.671
A2	.134	3.92
A3	.148	4.310
A4	.165	4.778
A5	.180	5.181
A6	.188	5.395
A7	.203	5.793
A8	.238	6.705
A9	.250	7.009
A10	.313	8.564
A11	.344	9.298
A12	.438	11.400
A13	.50	12.89
A14	.625	15.82
A15	.750	17.92
6" O.D. PIPES		
B1	.250	15.35
B2	.313	19.01
B3	.375	22.93
B4	.438	26.82
B5	.500	29.37
B6	.563	32.89
B7	.625	35.85
B8	.688	39.03
B9	.750	42.06
B10	.813	45.04
B11	.938	50.71
B12	1.000	53.40
B13	1.063	56.10
B14	1.188	61.10
B15	1.313	65.90
B16	1.438	70.00
B17	1.938	84.30



PURLIN





Wire guys brace columns to purlins. Columns are supported on steel base plates designed to resist all possible combinations of horizontal and vertical reactions. Footings are 11 x 11 x 3 ft, reinforced concrete, with ribs to help transmit horizontal thrust to the earth.

MANUFACTURERS' LITERATURE

Air Conditioning

1-37. *What Every Home Owner, Builder, and Architect Should Know About Year 'Round Air Conditioning*, 6-p. illus. booklet (4 x 8¼). Question-and-answer information on advantages of a combination air-conditioning furnace and packaged cooling unit. Chrysler Corp., Airtemp Div.

1-34. *Packaged Cooling (L-389)*, Chrysler Corp., Airtemp Div. Reviewed Feb.

1-35. *Refrigeration and Air Conditioning in Hospitals (Bulletin 502)*, Frick Co. Reviewed Feb.

Color Values in Vision

3-48. *Optonic Colors for Schools*, 22-p. color-illustrated booklet explaining color selection principles; 18 rules for planning color combinations. Arco Co. Pittsburgh Plate Glass Co., Color Engineering Dept. Reviewed February:

3-49. *Pittsburgh Color Dynamics (Adv. 225).*

3-50. *Pittsburgh Color Dynamics and Color Therapy for Hospitals and Institutions (Adv. 228).*

3-51. *Pittsburgh Color Dynamics for the Home.*

3-57. *Pittsburgh Color Dynamics for Offices, Hotels, and Restaurants.*

Concrete

3-54. Folder on pre-cast "artery" concrete building block, Arthur L. Kuhlman Industries. Reviewed Feb.

Concrete, Air Entraining

3-53. *Air-Entrained Concretes (Form 96-45-2)*, Dewey and Almy Chemical Co. Reviewed Feb.

Concrete Block

3-59. *Planning Your Home*, 14-p. illus. consumer booklet (5½ x 8½). Educational data on concrete masonry for home planners. Besser Mfg. Co., Public Information Service.

Copper

2 monographs, Copper & Brass Research Association. Reviewed February:

3-55. *Copper Valleys and Flashings for Residences (12-H).*

3-56. *Copper Roofs and Decks for Residences (12-H), Monograph II.*

Doors

4-36. *Revolving Doors (1945 Catalog for Postwar Planning)*, 20 pp. Data on revolving doors, combinations of wood, metal, formica, glass; operating mechanisms; typical details; tables on entrance infiltration loss, traffic capacities; specifications. International Steel Co., Revolving Door Div.

4-38. *New Comfort Thru Bishop Venta-Glass Windows and Doors*, Nu-Air-Wa Co. Reviewed Feb.

4-39. *St. Louis Doors*, 12 pp., illus. Features of motor- and manually-operated doors; freight, dumb-waiter, warehouse, industrial, fireproof. Data on operation; layouts; details; specifications. St. Louis Fire Door Co.

Doors, Garage

4-40. *A "Brand New" Overhead-Type Garage Door*, Berry Door Co. Reviewed Feb.

Drafting Room Equipment

On print-making machines, Charles Bruning Co., Inc. Reviewed February:

4-41. *Just the Ticket (Model 41 Printer-Developer).*

4-42. *It's Positively Right in Bruning Black and White.*

4-43. *Detail Engineers'-Glass and Universal Layout Scale for Form Grinders 50 to 1 Magnification*, Universal Engraving & Colorplate Co., Inc., Engineers Specialties Div. Reviewed Feb.

Ductwork

4-44. Folder on insulated duct, Philip Carey Mfg. Co. Reviewed Feb.

Electric Wiring Devices

5-28. *Bryant Superior Wiring Devices (Cat. 40)*, Bryant Electric Co. Reviewed Feb.

Electronics

5-29. *Electronics at Work*, Westinghouse Elec. & Mfg. Co. Reviewed Feb.

Fireplace Equipment

6-57. *The Modern Fire Screen*, 6-p. illus. booklet on "Flexscreen" woven metal curtains for fireplace safety screens. Bennett-Ireland, Fireplace Div.

8-84. *Firedaire, A Fireside Furnace*, Edwards Mfg. Co. (See No. 8-84 under "Heating Equipment.")

Floors

"Idea" portfolios on store modernization, Armstrong Cork Co. Reviewed February:

6-52. *Ideas for the Jeweler Who Is Planning for Tomorrow.*

6-53. *Ideas for the Baker Who Wants to Have a Better Shop.*

6-54. *Floors That Stay Young*, E. L. Bruce Co. Reviewed Feb.

6-55. *Modern Floor Finishing*, E. L. Bruce Co. Reviewed Feb.

6-56. Folder on machines for cleaning mill floors, G. H. Tennant Co. Reviewed Feb.

Furniture

6-60. *The Arnot Sleeper*, 12-p. illus. booklet describing convertible sleeping units for homes, hotels, etc.; brief information on metal furniture. Arnot & Co.

Glass Block

7-37. Folder on glass block for railroad buildings, Owens-Illinois Glass Co. Reviewed Feb.

7-38. Folder on use of glass block in industrial buildings, Owens-Illinois Glass Co., Insulux Products Div. Reviewed Feb.

Granite

7-39. *Fletcher Granite Products, AIA File 8-B-3*, H. E. Fletcher Co. Reviewed Feb.

Gypsum and Gypsum Products

7-42. *Architectural Specifications, AIA-37-A (WW-16)*, 4-p illus. folder on "Weatherwood" products: insulating building board, plaster base, tile, plank; asphalt-coated sheathing. United States Gypsum Co.

7-40. *Farm Production Must Be Increased*, United States Gypsum Co. Reviewed Feb.

7-41. *Sheetrock, Pyrofill and Weatherwood Pyrofill Roof Construction (CD-16)*, United States Gypsum Co. Reviewed Feb.

Heating Equipment

8-71. *Heat Exchangers, AIA [illegible] (Bulletin H-1)*, Brownell Co. Reviewed Feb.

8-80. *The New Principle of Heating Panelray*, 12-p. illus. booklet on gas heater unit for space heating; dimensions, specifications, installation data. Bryant Heater Co.

8-81. *Ratings and Installation Guide (Form 860)*, 12-p. illus. booklet (5[illegible] x 8½) on a baseboard system of radiant heating for homes; dimensions, specifications, detail drawings. Burnham Boiler Corp.

8-72. *Byers Radiant Heating in a Garage (P.O. 6741)*, A. M. Byers Co. Reviewed Feb.

8-82. *Coleman Gas Floor Furnace*, 26-p. illus. consumer booklet on automatic gas furnace set below floor (register at floor level), for use in homes, schools, offices, churches. Coleman Lamp and Stove Co.

8-84. *Firedaire, A Fireside Furnace*, 8-p. illus. booklet on all-steel, heat circulating fireplaces for small-area heating; specifications. Edwards Mfg. Co.

8-73. *Series 12 Unit Heaters, AIA-[illegible] D11 (Cat. 12C-1)*, Fedders Mfg. Co., Inc. Reviewed Feb.

8-74. *Wartime Story of a Bottled Boiler Plant*, Fitzgibbons Boiler Co., Inc. Reviewed Feb.

8-75. *Assured Economy in Automatic Heat (Form 242)*, 12-p. illus. booklet on an automatic stoker for any type residential heating system. Hershey Machine & Foundry Co.

8-76. *Modine Convector Radiation (Bulletin 245)*, 4-p. illus. consumer folder on copper convector unit for home hot water or steam heating systems. Modine Mfg. Co.

8-77. *Peabody CD Wide Range Oil Burning System (Bulletin 109)*, 4-p. illus. bulletin. Data on constant differential oil burning unit which controls combustion over a 50 to 1 capacity range. Peabody Engineering Corp.

8-78. *Preferred Unit Steam Generator (Bulletin 1000-B)*, 6-p. illus. folder on heavy-duty, oil-fired, portable steam plant unit, for full or semi-automatic operation. Data, dimensions. Preferred Utilities Mfg. Corp.

8-79. *A Practical Plan, for Incorporating Central Heating and Air Conditioning in a Proposed Suburban Apartment and Housing Development*, 24-pp., illus. Reprint of a study of a central heating and air-conditioning plant for a proposed suburban housing development. Blueprints, comparative cost data, case histories of typical installations. Rich-Wil Co.

Insulation

9-45. *Flintkote Insulation Products (SR-3)*, 4-p. illus. folder on decorative

nd structural insulation sealed sheathing, lath, building board, wallboard, roofing, tile, and plank; hardboard and rock wool. Flintkote Co., Pioneer Div.

9-43. *Announcing Sisalation, Sisalkraft* Co. Reviewed Feb.

Kitchen Equipment, Commercial

11-08. *Preferred Heavy Duty Fuel Oil Burning Ranges (Bulletin 200A)*, Preferred Utilities Co., Inc. Reviewed Feb.

Library Equipment

12-58. *Snead Bookstacks*, 40 pp., illus., bound. General discussion on planning for libraries. Information on floor-supporting library stacks, stack ventilation and lighting, stairs, study carrels, seminar rooms, enclosing partitions, communication systems, etc. Snead & Co.

Lighting

12-53. *Germicidal Lamps (Y-560-R)*, General Electric Co. Reviewed Feb.

2 Booklets, General Electric Co., Lamp Dept. Reviewed February:

12-54. *Standard Price Schedule of Large Mazda Lamps, AIA-31-F (Form 2195).*

12-55. *Standard Price Schedule of General Electric Miniature Lamps, AIA-31-F (Form 2101).*

From "Lighting Idea Stimulators" series of booklets published by General Electric Co., Lamp Dept. Designs, suggestions, detailed drawings by architects, of various lighting arrangements:

12-56. *Super Service With Light (Y-546) (service stations).*

12-57. *Wall-to-Wall Lighting for Tomorrow's Office (Y-547).*

12-60. *Engineered Lighting and Control Equipment, Condensed Cat. 945.* Indexed, 8-p. illus. catalog of lighting equipment for schools, hospitals, churches; public, recreational, commercial, and industrial buildings. Hub Electric Co.

Marble

illus. folders from Vermont Marble
on marble for exterior and interior
e; specifications:

8-29. *Genuine Marble.*

8-30. *Individualizing the Store Front, AIA File 8-B-1.*

Office Equipment

6-1. *The Rock-A-File*, 2-p. illus. folder wood file cabinets with sidewise ing compartments. Rockwell-Barnes o.

Partitions

4-77. *Partitions, AIA-19-E-61, and Wardrobes, AIA-28-B-33*, 12 pp., illus. escription of prefabricated folding rtitions and "disappearing door" ardrobes. Drawings, specifications. ternational Steel Co., Fairhurst Div.

Piping

4-73. *Wrought Iron for Piping Systems*, A. M. Byers Co. Reviewed Feb.

Plastics

4-74. Folder on phenolic resins, Durez lastics and Chemicals, Inc. Reviewed b.

MANUFACTURERS' LITERATURE

PROGRESSIVE ARCHITECTURE—Pencil Points, 330 West 42nd Street, New York 18, N. Y.
I should like a copy of each piece of Manufacturers' Literature listed.

We request students to send their inquiries directly to the manufacturers.

No.	No.	No.	No.
No.	No.	No.	No.
No.	No.	No.	No.
No.	No.	No.	No.

PLEASE PRINT

NAME

POSITION

FIRM

MAILING ADDRESS ☐ HOME ☐ BUSINESS

CITY STATE

3/46

16-75. *Hercules Cellulose Acetate, Properties and Uses (Form 500-28)*, Hercules Power Co., Cellulose Products Dept. Reviewed Feb.

Prefabrication

16-76. *The Rigidsteel Standard Building*, National Machine & Foundry Co. Reviewed Feb.

Pump Equipment

16-79. *Deming Pumps Everywhere*, 30 pp. Photos and descriptions of pump and water system installations: farm, home, factory, mine and quarry, town and village, marine, aviation, etc. Deming Co.

Refrigeration, Industrial

Illustrated literature on vertical and horizontal VSA refrigeration compressors, 1- and 2-cylinder, single or double acting, enclosed—driven by gas, steam, or electricity. Worthington Pump and Machinery Corp., Air Conditioning and Refrigeration Division:

18-20. *Evaporative Coolers, Bulletin C1100-B27.*

18-21. *Bulletin C-1100B-11A.*

18-22. *Bulletin C-1100B-18A.*

18-23. *Bulletin C-1100B-19A.*

18-24. *Bulletin C-1100B-20.*

18-25. *Bulletin C-1100B-21.*

18-26. *Bulletin C-1100B-22.*

18-27. *Bulletin C-1100B-23.*

18-28. *Bulletin C-1100B-26.*

Steel

19-45. *Know Your Steel When You Build or Remodel (PO-14)*, American Rolling Mill Co. Reviewed Feb.

19-46. *Jessop Stainless Steels*, Jessop Steel Co. Reviewed Feb.

19-47. *Better Construction with Steel Joists (LSJ-2-41)*, 8 pp., illus. Information on a method of developing concrete slab with lightweight steel joists. Construction details; recommended specifications. Laclede Steel Co.

19-48. *Stainless and Heat-Resisting Steels (Adv. 430)*, 32-p. illus. booklet on wartime applications of stainless steel, from tanks to human bone plates. Republic Steel Corp.

19-49. *The Saxe Welded Erection System (Bulletin 4)*, 2-p. folder on advantages of using welded erection seat and clip connections for steel construction. J. H. Williams & Co.

Storage Equipment

19-53. *A Modern Nation-Wide Service for Travelers of Tomorrow*, 10-p. illus. consumer booklet describing locker checking equipment for air terminals. American Locker Co., Inc.

19-52. *Parcel Locker Checking*, 30 pp., illus. Chatty dissertation on locker checking equipment. American Locker Co., Inc.

Store Fronts

19-50. *The Architect and "Machines for Selling!" (SF-5202)*, Kawneer Co. Reviewed Feb.

Ventilation

22-11. *Put the Wind to Work (Bulletin EX-101)*, Air Devices, Inc.

22-12. *Arex-Kernchen*, Arex Co., Kernchen Co.

Windows, Wood and Metal

23-58. *Style and Enduring Beauty Begin With Mesker Steel Windows*, 10-p. consumer booklet on advantages of using steel windows in home building; suggested window designs. Mesker Brothers.

4-30. *New Comfort Thru Bishop Venta-Glass Windows and Doors*, Nu-Air-Wa Co. Reviewed Feb.

23-54. *Pella Windows, AIA-35-P-1*, 22 data sheets. Details of casement windows for various types of construction; elevation sketch sheets; size tables. Rolscreen Co.

REVIEWS AND DIGESTS

By JEAN SHORT and DAVID ALDRICH

BOOKS

The American School and University, 1945. *American School Publishing Corporation, 470 Fourth Avenue, New York, N. Y. 8½" x 11¼", imitation leather bound, 575 pp., illus.*

The seventeenth annual edition of this work emphasizes planning for postwar modernization and extension of the school plant. This emphasis is maintained through thirty-seven articles on plant construction, planning particular facilities, maintenance and operation of the school plant, equipment and supplies, and school transportation. Certainly this volume covers most of the important problems confronting school administrators and builders today. Essential supplementary information concerning equipment, materials, and supplies is provided by the two hundred and thirty advertisers.

Data Book for Civil Engineers, Volume I—Design. *Elwin E. Seelye. Publishers, John Wiley & Sons, Inc., 440 Fourth Avenue, New York, N. Y. 9½" x 11¾", cloth bound, 417 pp., illus., index, $7.50*

This book should take a position in the profession of civil engineering similar to that occupied by Ramsey and Sleepers' *Graphic Standards* in architecture. *Design* (Vol. I of three. Vols. II and III, now in press, are *Specifications and Costs* and *Field Practice)* is a compilation in readily available form of the effective design data in each main field of civil engineering—structures, sanitation, water supply, drainage, roads, airfields, dams, docks, bridges, and soils. Many of the plates are original and of considerable interest to architects and contractors as well as to civil engineers—especially those showing methods for rapidly figuring combined flexure and axial stress in columns.

Mr. Seelye has stated his purpose in producing this volume thus:

"To make this book complete in itself so that a civil engineer could function though isolated from other reference books.

"To furnish data which will eliminate tedious office computing and thus minimize errors made in such computation.

"To aid the engineer in attaining results in accordance with the best engineering practice by making available data based on such practice.

"To expand the field of activity of the specialized engineer by providing him with handy data in fields allied to his specialty."

PAMPHLETS, MANUALS

Construction—a Policy Statement. *John L. Haynes, Chief, Construction Division, Bureau of Foreign and Domestic Commerce,* Domestic Commerce, *Government Printing Office, Washington 25, D. C. November 1945. 10 cents per copy*

Last summer, Congress appropriated funds for a construction division in the Department of Commerce. Mr. Haynes' article is a policy statement of the new bureau and is encouraging to all persons connected with the building industry. The division will be organized to furnish statistics on construction and materials and to conduct special studies and research in economical problems associated with full development of building activities.

It will promote year-round construction, *and removal of restrictive clauses in building codes and construction-management-labor contracts.* The new division proposes to devote itself in large part to assisting the building industry to attain larger volume through reductions in the cost of construction which have been kept high by (1) seasonal variation in employment, (2) obsolete building codes, (3) restrictive agreements between labor and management and (4) unwarranted speculative profits.

Let's Plan a "Peacetime" Home. *Mary Davies Gillies, Interior Decorating Editor,* McCall's; *Kenneth Stowell, Editor,* Architectural Record; *Emerson Goble, Managing Editor,* Architectural Record; *H. V. Walsh, Architect. Surface Combustion Corp., Toledo 1, Ohio. 113 pp., spiral bound, illus., table of contents.*

This glossy booklet approaches house design in a typical ladies' magazine way. Chattily written, the text is liberally sprinkled with plugs for gas appliances. This in itself would not be so hard to take, but the editors have inserted many digs against contemporary architecture and the philosophy which has fostered it.

For instance: "Functional planning is the technical term . . . if that sounds too mechanical . . . boxlike . . . 'modernistic,' don't judge too hastily. The 'functional' house can still be beautiful. Perhaps it will yet turn out to be a New England Colonial. . . . The functional planners became contemptuous of traditional architectural styles, and expressed their contempt in unlovely exterior designs."

Perhaps the Surface Combustion Corporation knows no better than to publish a book like this. One can hardly say the same for the editors.

Let There Be Light. *Robert M. Stecher, M.D. From the Bulletin of the Medical Library Association. Reprinted by General Electric Company, Nela Park, Cleveland, Ohio. Paper pamphlet, 8 pp., illus., tables.*

Dr. Stecher is annoyed by the ignorance and indifference of public libraries to the light requirements of readers. His discussion is restricted to lighting factors which can be controlled by the architect or librarian—general level of illumination, contrast, and glare. The article reports the opinion of experts on the amount of foot-candles required for reading, the effect of high lights and constrasts on efficiency and physiological strain. The reactions and capabilities of the human eye are analyzed in an attempt to find ideal illumination and, short of the ideal, to control architectural features for optimum compromise between reading ease and economy.

Planning for Electricity. *Small Homes Council, Mumford House, University of Illinois, Urbana, Ill. 8 pp., illus.*

More information for the layman on economical house planning. The booklet covers, briefly, pattern of electric use; principles of good lighting; safe, economical, adequate, and convenient wiring; and a lesson on how to read an architectural lighting plan.

Planning the Kitchen. *Small Homes Council, University of Illinois Bulletin, Urbana, Ill. 8 pp., pamphlet, illus.*

Another in the Council's series of pamphlets for the prospective home builder. *Planning the Kitchen* has more than the usual amount of data useful to architects and designers. The most efficient heights and depths for working surfaces are given, amplified by diagrams and photographs. Colors, materials, and lighting systems are discussed in some detail.

Rating Code. *Steel Boiler Institute, 500 N. Union St., Middletown, Pa. 19[illegible] Paper bound, 24 pp., graphs, drawings, tables, index, 50 cents*

The fourth edition of the SBI Rating Code includes new codes for residential and commercial boilers. Revised to specify minimum rather than average furnace heights for commercial structures and standardized mechanical fired boilers, new grate area formulas and furnace volume requirements for hand fired boilers in residential areas the Code provides a uniform method of rating steel heating boilers which are manufactured in accordance with the American Society of Mechanical Engineers Boiler Construction Code.

Planning the Art Department for the New School. *Leon L. Winslow, Director*

Art Education, Baltimore. Related Arts Service, 511 Fifth Avenue, New York, N. Y. 8 pp., paper bound, illus., bibliog.

To provide some means of standardization for art classrooms, the Division of Art Education in Baltimore prepared specifications relating to construction, color, furniture, and mechanical equipment. Suggestions are made for the location of the art department in the building (near entrance and auditorium), for its lighting and electricity, built-in fixtures and general equipment. A rather complete list of required furniture is given as well as plans and elevations for a typical art room.

TECHNICAL ARTICLES

Chemistry and Construction. *A. J. Hockett, M. D., Director, King County Hospital System, Seattle.* Modern Hospital, *September 1945.*

Medical advancement during the war has called attention to the need for a new approach to hospital planning. Dr. Hockett reports that in fields such as surgery, internal medicine, orthopedics, urology, neuropsychiatry, and geriatrics, drastic changes in construction are overdue.

Increased use of plasma and whole blood requires not only a blood bank in the surgery, but also standard bedside equipment. Foreseeing a decrease in length of time required for fracture treatment and eventual abolishment of tuberculosis, Dr. Hockett indicates that sections for the treatment of such ailments be planned as temporary or convertible units. Shock treatment for psychiatric patients is fast becoming an integral part of the general hospital; also required are occupational and physical therapy departments.

The Plastics Paint Racket. Modern Plastics, *November 1945. Published by Modern Plastics, Inc., 122 East 42nd Street, New York, N. Y. 50 cents per copy*

None of the so-called "plastic finishes" on sale to consumers in January 1945 had properties unusual in standard paints. Then, what is "plastic finish?" "Plastic paint" or "plastic finish" is standard (occasionally inferior) paint or varnish relabeled by unscrupulous promoters for sale at greatly marked-up prices. It is *not* a new finish. At best it is high quality enamel. It may well be an inferior paint. In any case, the finish has no relation to the molded plastics which gained such glamorous reputations during the war.

The November issue of *Modern Plastics* debunks the plastics-paint racket in a most informative article which discusses the conditions upon which a paint may be called plastic (most pre-war paints used synthetic resins as a base) and carefully explains that retail finishes which have the character of molded plastics are still in the laboratory. When the new finishes *do* appear, they will be a far cry from the present consumer paints.

Please Mail Me One House. *Woman's Home Companion, October 1945.*

The *Woman's Home Companion* puts in a plug for prefabricated houses—especially those of the most conventional style. Chattily, the *Companion* assures readers that "prices range from $2,000 to a fat $60,000, and a single firm may offer you a choice of fifty different houses in Colonial, Cape Cod, Californian, Georgian, *modern and other styles*" (our italics).

The editors have analyzed the many types of prefab in a very understandable way, but, unfortunately, seem to want their f.o.b. houses with all the gingerbread, shutters, and leaded windows that the prefab pioneers rejected.

Technique. *André Bélancy-Béarn in* L'Homme et L'Architecture, *July-August 1945.*

Because France has been so long removed from the rest of the world, the French architects find it difficult to form immediate opinions on recent advances in building methods. This article is an attempt to cover reconstruction needs and possible construction systems which might be employed to speed French building.

Cost is the biggest question in French construction circles today. Some persons believe that new buildings—paid for or not—will enhance national wealth. Others can't visualize rehabilitation without cash on hand, want to cut costs by total industrialization. M. Bélancy-Béarn believes the solution lies in the middle road. Lack of manpower is pressing and it is necessary to spread reconstruction over a period of years. Because people must have roofs over their heads, the replacement of totally or partially destroyed homes is most urgent. And, while permanent housing will not be completely prefabricated, a certain percentage of the building must be done by mass production in order to conserve manpower.

Commenting on the first effect of "modern" materials many years ago, M. Bélancy-Béarn laments that, while great freedom of composition was gained, fantasy became uncontrolled and individualism reigned, without regard for elementary construction and site planning principles. Now, he feels, the time has come to screen out the best things learned from such experimentation and to develop basic standards for French building.

Plugging the module system of planning, M. Bélancy-Béarn says it is not logical to standardize the parts of a building without developing some standard of measure for the whole—a module. One of the state bureaus has already supervised and published a sort of Sweet's Catalog and a Graphic Standards is in print. The dimensions and modules given in these publications are not mandatory, but it is to be hoped that architects will, in interest of national economy and recovery, use them almost exclusively.

Although many Frenchmen have been worried by the restrictions which they consider inherent in prefabrication, the author feels certain that freedom will survive mainly because total industrialization requires machinery and organizations which do not—cannot—exist in France today. Also, there has been no proof that such industrialization would be cheaper. The amortization of the factory must be added to the cost of the house. The reconstruction will be largely renovation and repairs of partially destroyed buildings which could not be done by prefab methods. Many of the destroyed buildings are now being assessed for materials such as masonry which could be used in new structures.

Arguments against total prefabrication do not mean that France will return to the old methods of construction, since there are certain savings in manpower involved, viz.:

(1) preparation of work, plans carefully drawn, and work carefully scheduled;

(2) use of new tools;

(3) shop fabrication of certain elements including form work for reinforced concrete beams, sills, floor-slabs;

(4) good working relations between architect, engineer, and builder;

(5) clients who can make up their minds before start of construction.

Competitions organized by the Ministry of Construction for new types of structural walls have not brought the expected results.

There are, today, two kinds of flooring available in France; (1) concrete slab and (2) beam and joist steel flooring. It is possible to save by standardizing the thickness of the slab floor and the length of the span. Pre-stressed reinforced concrete beams are a common conception in France and will soon be sold on the market. (A bridge was designed, constructed, and tested by Freyssinet in 1942-43 using pre-stressed reinforced concrete members.) It is to be expected that such members will soon be commonly employed, being extremely light, conserving of material, and much stronger.

There is an evolution in the construction industry toward some sort of standardization. The old ways of building cannot be entirely replaced by prefabrication but reconstruction will be possible only with economies in manpower, and economies in manpower can be accomplished only through methods of mass production of certain things. These methods of mass production may be applied either in the factory or on the site.

. . THERE MUST BE A REASON!

GOVERNMENT BUREAU STICKS ITS NECK OUT

Strictly speaking, construction forecasts have no place on a page devoted to progress in building materials and equipment, yet there is a relationship, as we shall point out. In the January 1946 issue of *Domestic Commerce*, William H. Shaw, Chief, Statistics Unit, Construction Division, Bureau of Foreign & Domestic Commerce, U. S. Dept. of Commerce (*what* a title!) presents the accompanying official prophecy for 1946. Private work will account for almost 75% of all new construction, if the Department's figures are correct; and by far the largest single item is residential—excluding hotels, which are amusingly lumped with "Other Non-Residential." Industrial construction ranks next. In general, not only is total new construction expected to top 1945 by nearly 60%, but also, the private-construction figure forecasts a complete reversal of the situation during both the war and the preceding depression; not in nearly two decades has it been so great in volume. Mr. Shaw predicts that by December 31, 1946, new construction will proceed at a $9-billion annual rate, and that in 1947 we will go at a $12-billion clip. (The 9-billion figure may be compared to the National Business Paper Editors' prophecy of 5.7 billions.)

The catch (oh, yes; the catch!) is that "reasonable" costs, not far from present levels, are assumed, and that we must solve current materials-shortage problems. Mr. Shaw does not consider materials problems serious impediments in the long run, although tremendously increased production of certain basic materials is of immediate importance. He is much more concerned about costs, stating: "The construction industry must face squarely the problem of reducing costs," because sustained building activity depends upon sustained demand, and because in some sectors of the building market, notably housing, demand is especially sensitive to costs.

CONSTRUCTION ACTIVITY IN THE U.S.A.
(Figures in millions of dollars)

TYPE	1945	1946
Private		
Residential (non-farm)	770	2,150
Industrial	691	1,150
Farm	200	400
Other non-residential (incl. hotels)	442	850
Public utility	542	800
Total Private	2,645	5,350
Public		
Residential	70	100
Mil. & Naval	575	150
Industrial	647	50
Other non-residential bldg.	205	400
Construction other than bldg.	547	1,450
Total Public	2,044	2,150
TOTAL NEW CONSTRUCTION	4,689	7,500
Repair, Maintenance, Total	4,500	5,000
GRAND TOTAL	9,189	12,500

Source: U. S. Department of Commerce

MATERIALS AND HOUSING

To confuse you further on the no-materials-we-want-housing situation: Wilson Wyatt, the energetic, almost realistic housing expediter, recently said surveys proved that 84% of veterans can't pay more than $50 per month in rent or on purchase prices, and that only 17.5% of applications for building materials priorities (in the first two weeks of operation) fell in this price-range. On the other hand, FHA, which processes applications, said that in the first week, 44% were for units to sell at less than $7500 or rent at less than $60 a month. Wyatt, now appointed Housing Administrator, proposes lowering the sales ceiling for priorities-assisted new houses to $6000, subsidies for materials manufacturers, and controls over sale prices of existing houses. "Vested" interests are popping buttons in rage; but the Nat'l. Ass'n. of Home Builders has just approved the subsidy idea.

RADIANT HEATING

As this is written, the American Society of Heating and Ventilating Engineers is in session, and Professor F. W. Hutchinson of Purdue University, a man of considerable stature in radiant heating, is presenting before that body a paper on what seems to be a *really* simplified approach to radiant heating design. In essence, his system is a trial-and-error method similar to empirical structural design. The designer first estimates temperature and area of panel surfaces needed, then checks results obtainable with those required, using a single, simple formula; if the two don't jibe, he tries again. It sounds eminently sensible.

CORRECTION

A. Gordon Lorimer, author of the article, "A Scotsman Looks at Modular Coordination" (Jan. 1946), requests us to correct impressions which may have resulted from unfortunate wording of captions. For brevity's sake we called one type of product "glazed tile;" the manufacturers call it a "structural facing (or surfacing) unit." Also, we referred to one size of this material as a "former standard" which did not coordinate well. Actually it is a current standard; its joints coordinate with those of other modular materials at 4-module intervals.

THIS MONTH'S PRODUCTS

AIR CONDITIONING

Air Conditioning-Sterilizing Unit. Large or small models for air conditioning, also for germicidal use by means of triethylene glycol vaporizers. Soon available for homes, hospitals, etc. Rogers Diesel and Aircraft Corp., 1120 Leggett Ave., New York 59, N. Y.

BATHROOM EQUIPMENT

Parkway Cabinet. Steel, white-enameled bathroom cabinet with safety compartment for poison drugs, etc., and two compartments on back of swinging doors. Faries Mfg. Co., Decatur, Ill.

FLOORING

Corolon. Resilient flooring, resistant to grease, dirt, marring, water, moisture; available in color. Armstrong Cork Co.

HEATING EQUIPMENT

Panelray. Gas heater unit, designed for 4" walls, for space heating; heat-trap flue radiates infra-red rays; sizes 10,000 to 40,000 Btu; over-all dimensions 59-3/8" high, 13-3/16" to 21-3/16" wide. Bryant Heater Co., 17825 St. Clair Ave., Cleveland 10, Ohio.

Firedaire. 3-piece, all-steel, heat-circulating fireplace connectable to any 8" x 8" or larger stove chimney, for small-area heating; one-man installation; movable. Edwards Mfg. Co., Inc., 5th and Butler Sts., Cincinnati 2, Ohio.

Pittsburgh Safety Flue. Refractory-cast unit including flue entrance and liner, baffle plate cleanout opening with closure; withstands 2400° F. New Castle Refractories, Dept. 20, New Castle, Pa.

ISOLATION MATERIALS

Vibracork. Vibration isolation material (2" to 4" thick) for use under heavy machinery installation, etc. Korfund Co., Inc., Long Island City, N. Y.

LIGHTING EQUIPMENT

Fluorescent Luminaires. 2- and 4-light commercial luminaires with 2 double-strength, ceramic-treated, removable side panels; Tu-lamp ballast; 110-125 V., 60 cycle A.C., up. Mitchell Mfg. Co., 2525 Clybourn Ave., Chicago 14, Ill.

Sun Switch. Electronic device for individual control of street lighting, lighting of public buildings, airports, etc. Adjustable. Ripley Co., Torrington, Conn.

STRUCTURAL MATERIALS

Composite Construction Material. Sheets of aluminum, stainless steel, wood veneer, or plastic bonded to "honeycomb" of bakelite-resin-impregnated paper, cotton, or linen; waterproof, high strength; weight as low as 4 lb per cu ft. Now manufactured for transportation field, soon for residential—doors, frames, wall panels. Glenn L. Martin Co., Baltimore 3, Md., and U. S. Plywood Corp., 55 West 44th St., New York 18, N. Y.

PLYWOOD: IV (Physical Characteristics)

Progressive Architecture • March 1946 • Serial No. 20

BUILDING PRODUCTS FACTS

This is the fourth of a series of Building Product Fact sheets on plywood. Sheets I and II, published in Nov. and Dec., 1945, contained data on manufacture, grades available, and sources of supply, of Douglas fir, hardwood, plastic-surfaced, and metal-surfaced plywood. Sheet III (Feb. 1946) contained tabulations of physical properties of Douglas fir and hardwood plywood.

PLASTIC-SURFACED (DENSE) PLYWOOD

PHYSICAL PROPERTIES—Dense Plastic Surfacing for Plywood (Data from Spot tests)

Property	Grades 2000 and 2002 Parallel Laminated With Grain	Gross Grain
Specific Gravity	1.39	1.39
Moisture Absorption (24 hour—%)	1.6	1.6
Tensile Strength (Lbs./in.²)	18000	14000
Elastic Modulus (Tension) Lbs./in.²	1.60×10^6	1.15×10^6
Compressive Strength: Flatwise (lbs./in.²)	32800	32800
Edgewise (lbs./in.²)	21900	20100
Flexural Strength: Flatwise (lbs./in.²)	17200	15200
Edgewise (lbs./in.²)	18100	14700
Flexural Modulus: Flatwise (lbs./in.²)	1.44×10^6	1.07×10^6
Edgewise (lbs./in.²)	1.43×10^6	1.04×10^6
Shear Strength (Johnson Tool): Flatwise (lbs./in.²)	12000	12000
Edgewise (lbs./in²)	12000	12000
Impact Strength (Izod, Notched): Ft. lbs./in. of notch		
Flatwise	2.56	1.56
Edgewise	.58	.56
Themal Conductivity: Btu/Sq. Ft./hr/Deg.F/in.)	1.4 — 2.3	1.4 — 2.3
Hardness (Rockwell, Scale M): Flatwise	127.4	127.4
Edgewise	125.7	125.4
Dielectric (Volts/mil.)	250	250

Note: These properties may be used in calculating theoretical strengths of any combination of core stock and dense plastic surfacing.
The above table gives properties of the surfacing material only, and only for dense plastic. No comparable data have been furnished for the less dense type of plastic surfacing.

PROPERTIES OF PLYWOOD AND DENSE PLASTIC SURFACING COMBINED

Grade (Lb. per side)	Standard Available thicknesses	Film Thickness Each Side approx.)	Standard Size Panels	Surface Hardness (Rockwell Scale)	Vapor Transmission (Grams per sq. m. per hr.	Total Weight of Surface Film per M. Sq. Ft.
60/60	Available in thicknesses from 5/16 of an inch to 3/4 of an inch by sixteenths. Allowable tolerances range from 1/32" + to 3/32" —, depending on thickness; avg. is 1/32" minus.	.009 - .009	Standard sizes to 48 x 96 inches. Long lengths to 120 inches. Cut-to-size panels available on special order.	appr. 74M	appr. .017	120 lbs.
60/80		.009 - .012				140 lbs.
80/80		.012 - .012		appr. 85M	appr. .016	160 lbs.
60/100		.009 - .015				160 lbs.
100/100		.015 - .015		appr. 101M	appr. .015	200 lbs.
60/120		.009 - .018				180 lbs.
120/120		.018 - .018		appr. 110M	appr. .014	240 lbs.
60/140		.009 - .021				200 lbs.
140/140		.021 - .021		appr. 117M	appr. .013	280 lbs.
60/160		.009 - .024				220 lbs.
160/160		.024 - .024		appr. 124M	appr. .012	320 lbs.
60/180		.009 - .027				240 lbs.
180/180		.027 - .027		appr. 128M	appr. .011	360 lbs.

DOUGLAS FIR PLYWOOD—HEAT TRANSMISSION for various constructions

Wall Construction			Heat-flow Resistance Inside to Out	U
Inside Lining	**Insulation**	**Outer Wall**		
1/4" Plywood	———	3/8" Ext. Ply.	2.49	.40
3/8" Plywood	———	3/8" Ext. Ply.	2.65	.38
1/4" Plywood	1/2" blanket insul.	3/8" Ext. Ply.	5.40	.19
1/4" Plywood	———	5/16" Plyscord shthg., wood shingles and bldg. paper	3.41	.29
1/4" Plywood	1/2" blanket insul.	5/16" Plyscord shthg., wood shingles and bldg. paper	6.32	.16
1/4" Plywood	———	5/16" Plyscord furring, siding	4.32	.23
1/4" Plywood	———	5/16" Plyscord furring, 3/8" Ext. Plywood	3.80	.26
1/4" Plywood	1/2" blanket insul.	5/16" Plyscord furring, 3/8" Ext. Plywood	6.71	.15
3/4" Wood Lath and Plaster		5/16" Plyscord, Paper, siding	3.49	.29
3/4" Wood Lath and Plaster	1/2" blanket insul.	5/16" Plyscord, Paper, siding	6.40	.16
1/4" Plywood	———	5/16" Plyscord, air space, 4" brick	4.12	.25

Note: Coefficient of heat transmission (U, in Btu per inch of thickness) is same for Douglas fir plywood as for Douglas fir: 0.78. In above table, inside surface resistance is taken as 0.61, outside as 0.17.

COMPARATIVE PROPERTIES—VARIOUS TYPES OF PLYWOOD

Product	3/8" 3-Ply Douglas Fir Exterior		1/4" 3- Ply Birch, Poplar Waterproof	
	Unsurfaced	60/60 Dense Plastic Surfacing	Unsurfaced	60/60 Dense Plastic Surfacing
Avg. Water Absorption (24 hr.)	18%	0.6%	15%*	0.6%*
Water Permeability 6" head (24 hr.)	11%	0.3%	8%*	0.3%*
Vapor Permeability, Grains/sq.ft/hr. (0.355#/sq.in. vapor pressure)	no data	0.3 - .20	no data	no data
Abrasion Resistance Dry	5.7	1.2	3.2	0.5
(wt. loss, Grams/hr/sq.ft.) Wet	133.7	4.0	76.8	1.0
Bending Moment at failure (In. lb/in.)	72	92	46*	259*
Stiffness Factor (EI—lb./in.)	795	1600	53*	600*

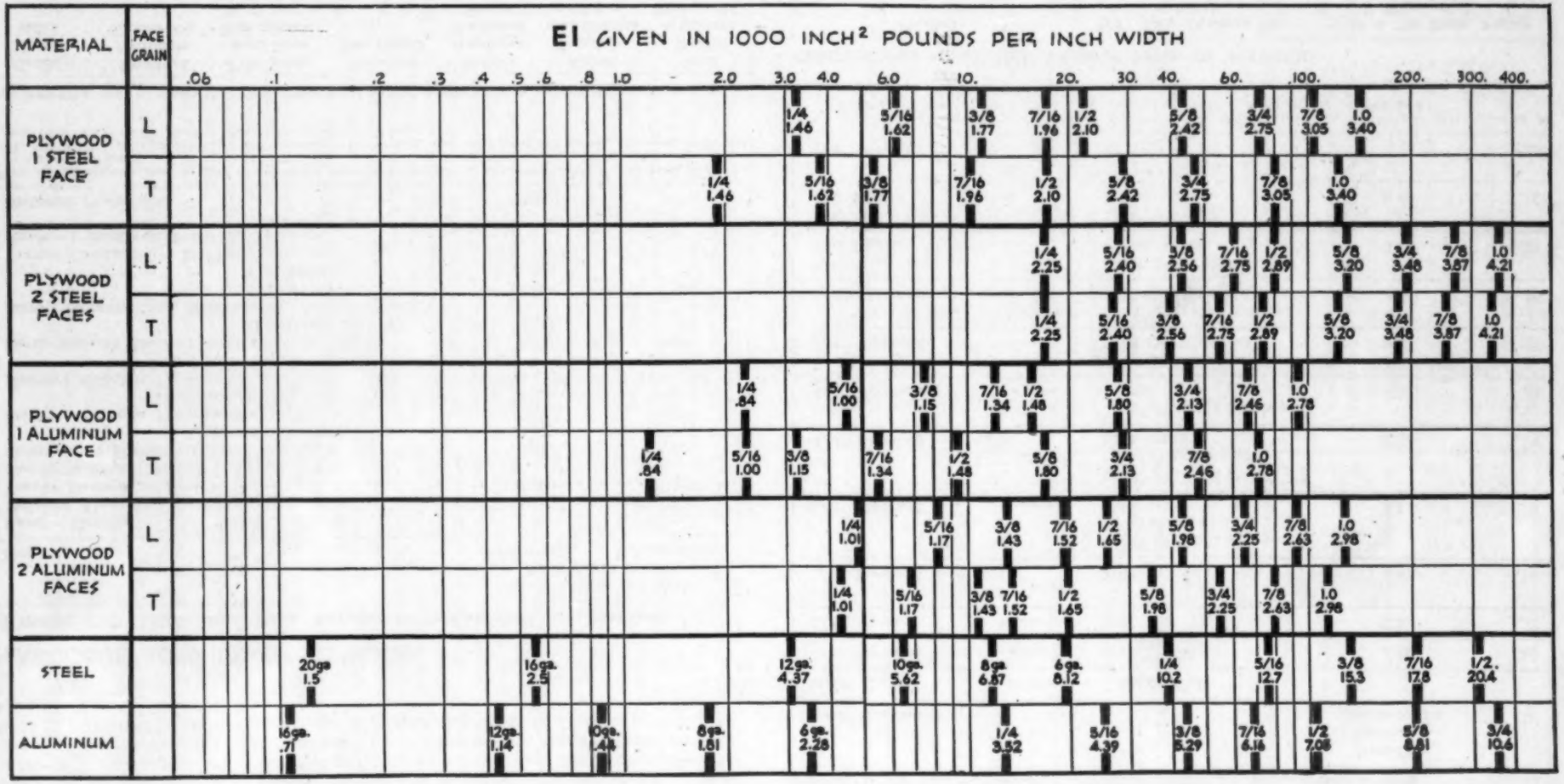
*Note: Water absorption and permeability of fir and other unsurfaced plywoods would be substantially reduced if data were available for painted plywood. These figures are for unpainted plywood. See tables under "Douglas Fir" for vapor permeability of Douglas fir plywood. * indicates birch; otherwise figures in these columns refer to poplar.*

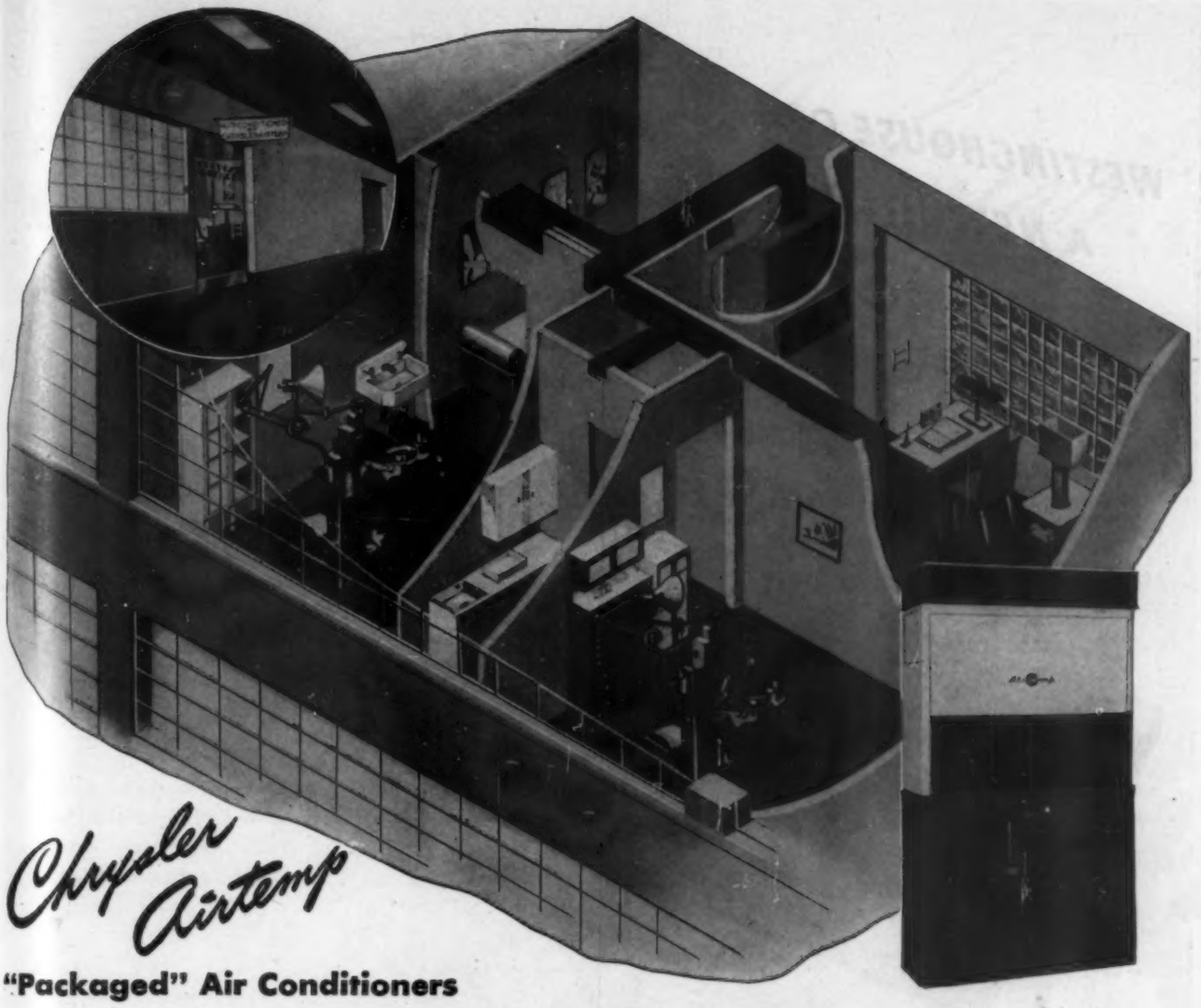
PLYWOOD: IV (cont'd.)

METAL-SURFACED PLYWOOD

COMPARATIVE STIFFNESS

The following chart is based upon metal-surfaced plywood as manufactured by Haskelite, with values as follows: **Modulus of elasticity:** core, with grain, 1,300,000 lb/sq in.; across grain, 65,000 lb/sq in.; steel, 30,000,000 lb/sq in.; aluminum, 10,000,000 lb/sq in. **Thickness of metal:** steel, .021" (27 ga); aluminum, .015". **Modulus of rupture:** core, 9,000 lb/sq in. with grain. **Weight:** core, 30 lb/cu ft. **Ultimate stress on metal:** steel, 40,000 lb/sq in.; aluminum, 21,000 lb/sq in.





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For details about controlled "Weather", write Airtemp Division of Chrysler Corporation, Dayton 1, Ohio. In Canada: Therm-O-Rite Products, Ltd., Toronto.

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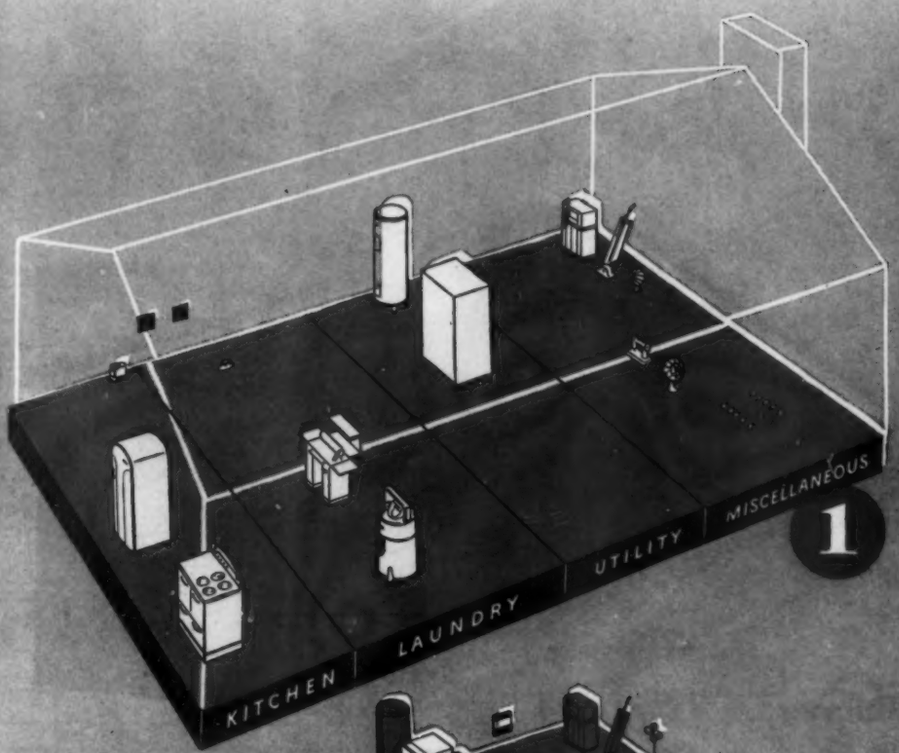
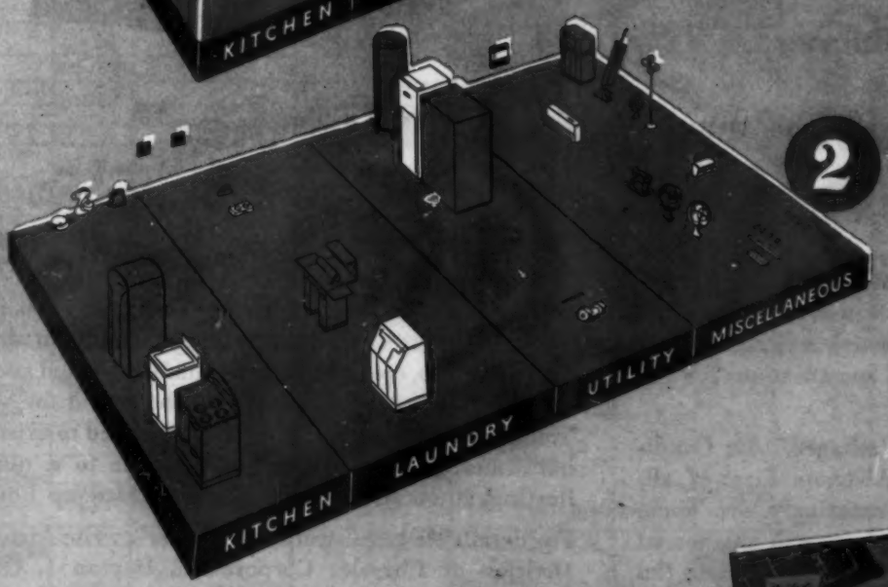


Thrift Degree—the minimum standard for Electrical Living. Includes appliances, equipment and lighting shown.



Budget Degree—more equipment and automatic features are added to the Thrift standard. Additions include a dishwasher, home freezer and Laundromat.

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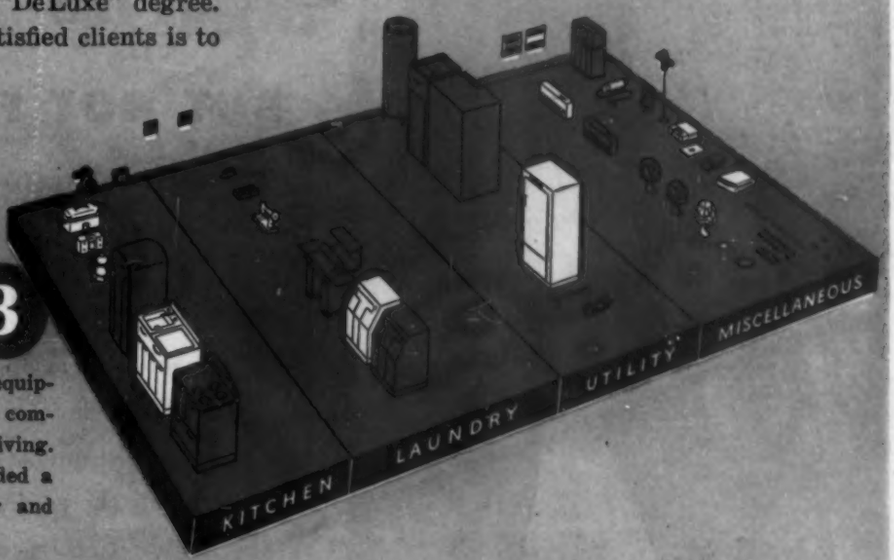

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The job was a big one—the kind contractors like. looked like smooth sailing to Casey until lack of ma suddenly stopped the job. But not Casey! With architect, the engineer and Ceco, he made changes to available Ceco products such as Concrete Reinfo Bars, Meyer Steelforms, Welded Wire Fabric, L Fabricated Trusses and Open Web Steel Joists, all which gave greater advantages—in space and cost manpower and installation. The gist of it all is Casey completed his contract on time, within the orig cost, and to the satisfaction of the architect and

In construction products **CECO ENGINEERIN**

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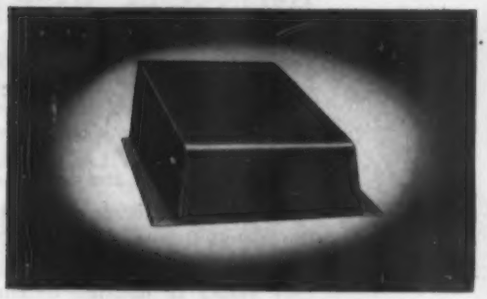

Meyer Steelforms mean less concrete is required, making for economy in construction.

Ceco Reinforcing Bars provide positive bond to aid adhesion of concrete to the steel.

Open Web Steel Joists provide fire-resistive construction, concealing sanitary, lighting and heating systems.

Ceco Welded Wire Fabric provides reinforcement for the concrete slab over Meyer Steelforms.

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REVIEWS

BRITISH PLANNING PUBLICATIONS

By RITA DAVIDSON

The gracious comment of F. J. Osborn (of Britain's Town and Country Planning Association), that "planning literature the U.S.A. is even more copious than here, and much more lavish in paper and presentation," would seem belied by lengthy bibliography below, supplementing Catherine Bauer's "Toward a Green and Pleasant England?: Critical Review English Publications on Postwar Planning" (PENCIL POINTS, April 1944). Both compilations indicate that the Brit have been writing at a fast pace and have been profound as well as prolific. Presentation, considering the paper shortage, h been outstanding and in certain books, such as Abercrombie's GREATER LONDON PLAN (1944), extremely attracti

Some of this British material should provoke parallels here. More inexpensive, explanatory literature along the lines the Penguin and Architectural Press pamphlets would boost public enlightenment.

The reviews have been limited to the most significant postwar planning material; architectural books are included only they relate to housing or construction standards, and periodical literature is not cited. His Majesty's Stationery Of publications may be priced and p chased from the British Informati Services in America. The facilities a very cooperative librarians at Harv University were of great assistance

Hello, YEOMANS— DOES YOUR GUARANTEE COVER PUMPS INSTALLED in 1902?

This query from Paul Zimmerman, chief engineer of Wilson Brothers building, Chicago, referred to two Yeomans centrifugal wet pit ejectors installed in 1902.

Through the ensuing years these sturdy units tended quietly, efficiently to their job of pumping drainage, seepage and toilet wastes - - until finally rust ate through the suspension pipe of one pump, and attacked the impeller. New parts were installed. Such records are not uncommon for Yeomans Pumps - - are, rather, the kind of performance you can expect. All Yeomans Pumps are engineered and built to deliver just such service.

Yeomans builds pumps for use in drainage, sewage, water circulation, boiler feed, condensation, air conditioning; for Public Buildings • Factories • Apartments • Residences • Schools • Hospitals • Stores • Hotels • Clubs • Theaters • Railway Stations • Power Plants • Subways

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Yeomans Pumps

PLANNING—IN GENERAL

Abercrombie, Patrick. TOWN AND COUN PLANNING. (London: The Home University Lib Oxford University Press, 1943. 256 pp.) Revised not rewritten; after ten years it continues to town planning classic.

School of Planning and Research Regional Development. SYLLABUS O COURSE ON THE BACKGROUND OF PLANN (91 pp.); SYLLABUS OF A COURSE ON TO PLANNING (281 pp.); SYLLABUS OF A COU ON PLANNING PRACTICE, PART 1 (77 pp.). respondence courses for members of H.M. Fo Intended primarily for service men and women plan to come up for Town Planning Institute (T certificates. After completing the correspon series, students may enroll for an intensive months' course in town and country planning School of Planning in London. The books ha an excellent study guide and introduction to ning; their applicability is largely British. To the American forces did not institute a s program.

NATIONAL RECONSTRUCTION

Gutkind, Erwin A., Editor. CREATIVE MOBILIZATION: PRINCIPLES OF NATI PLANNING, VOL. 1 (331 pp.); CASE STUDI NATIONAL PLANNING, VOL. 2 (280 pp.). York: Oxford University Press, 1944.) Sinc mention in Miss Bauer's bibliography, an Am edition has been published.

McCallum, Ian R. M., Editor. PEACE PLANNING: THE GROUND WORK OF A TECHNIQUE. (London: The Architectural 1945. 296 pp.) Surveys physical planning with a of thoughtful essays by specialists. The cont is broad, ranging from problems of survey, land and ecology to design, and the articles are plac a historical and social framework. Good readin reference for planners and those in peripheral

Osborn, F. J., Advisory Editor. PLAN AND RECONSTRUCTION YEARBOOK; 1942 pp.); 1943 (368 pp.); 1944-45 (438 pp.). (Lo The Todd Publishing Co., Ltd. Yearly since A yearbook for the trade as well as the profes In addition to sections on general planning pro specialized subjects, and planning in other cou it includes valuable reference material: who's lists of appropriate organizations and mat pertinent official pronouncements, bibliograph There is unfortunately no parallel American v

Simon, E. D. REBUILDING BRITAIN: A TY YEAR PLAN. (London: Victor Gollancz, 1945. 256 pp.) Sweeping analysis of the possi of a twenty-year reconstruction. Simon's conc is not fully warranted by his examples of p planning but he has courage and imagination.

Stephenson, Flora, and Pool, Phy A PLAN FOR TOWN AND COUNTRY. Forewo Julian Huxley. No 2 of TARGET FOR TOMORROW (London: The Pilot Press, Ltd., 1944. 60 pp.) cussion of the major planning reports and comment they have received viewed from the spective of Britain's urban problems. This cu tary review of what has been happening on planning front is good popular reading.

(Continued on page 114)

SYLVANIA NEWS
ARCHITECTURAL EDITION

MARCH *Published by* SYLVANIA ELECTRIC PRODUCTS INC., Salem, Mass. 1946

WIDE TREND TOWARD STORE FLUORESCENT LIGHTING SHOWN IN SYLVANIA SURVEY

Latest National Survey Finds Drug Stores Ahead in Modern Lighting

According to the latest, nationwide commercial lighting survey, made for Sylvania Electric by one of the country's largest market research organizations, there is a potential fluorescent lighting market of 4,263,000 commercial establishments in the country.

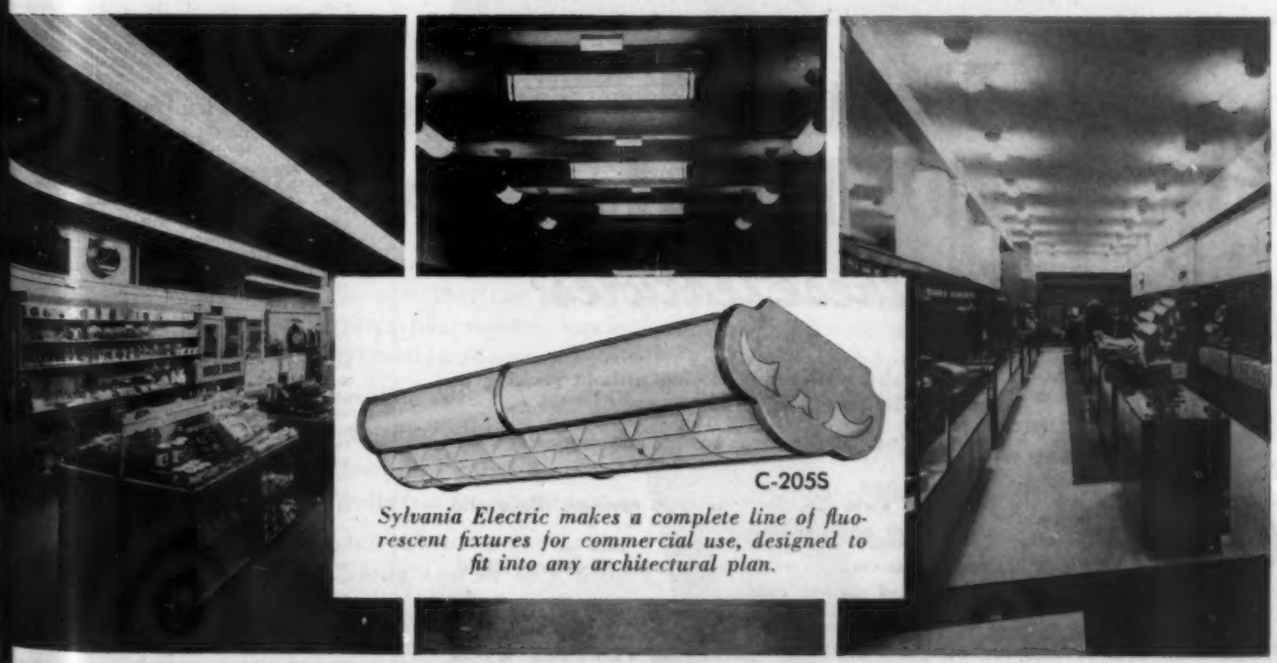
This vast field for fluorescent lighting installations is largely a result of the wide trend among store owners of modernizing to attract customers and enhance their merchandise.

The survey is the first of a continuing series of commercial lighting surveys, conducted in cities of 2,000 population and over from coast to coast. It covers retail stores, wholesale establishments, service stores and miscellaneous commercial and public places.

SURVEY FACTS

Of this broad commercial field, it was found that among the leading users of fluorescent lighting were drug stores: 64.2% of the country's 58,000 drug stores are now using this modern lighting. Other top users of fluorescent lighting are apparel, automotive and general merchandise stores—55.4, 54.3 and 45.7 per cent, respectively, using that type of lighting.

Here are actual facts indicating the national trend toward fluorescent lighting in stores of all types. Much of this and other information from these surveys is assuring you, as architects, that Sylvania Electric will have the proper fluorescent lighting equipment to fit into your latest plans.



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REVIEWS

(Continued from page 112)

BARLOW, SCOTT, UTHWATT, AND BEVERIDGE REPORTS

Association for Planning and Regional Reconstruction. MAPS FOR THE NATIONAL PLAN: A BACKGROUND TO THE BARLOW REPORT, THE SCOTT REPORT, AND THE BEVERIDGE REPORT. (London: Lund Humphries and Co., Ltd., 1945. 119 pp.) Provides graphic background for the postwar reconstruction plans with salient passages quoted opposite each map. Excellent visual presentation.

Minister of Town and Country Planning and The Secretary of State of Scotland. THE CONTROL OF LAND USE. "White paper" presented to Parliament. (London: H.M.S.O., 1944. 15 pp.) The Government's answer to the Barlow, Scott, and Uthwatt Reports is "a practical system whereby individual rights of land tenure may be reconciled with the best use of the land in the national interest."

Young, G. M. COUNTRY AND TOWN: A SUMMARY OF THE SCOTT AND UTHWATT REPORTS. (London: Penguin Books, 1943. 142 pp.) A well written summary, inexpensive but misleading since neither Dennison's important Minority Report nor the Barlow Report are included. This lacuna tends to weight the anti-decentralisationist viewpoint.

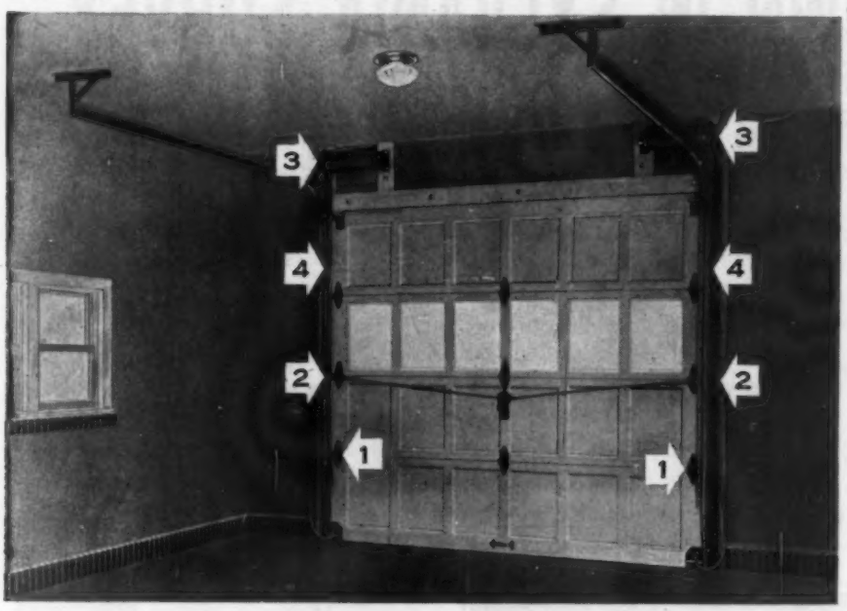
DECENTRALIZATION AND DISPERSAL

Association for Planning and Regional Reconstruction. ADAPTING WARTIME SITES TO POSTWAR USES. (Prepared for Slough Estates, Ltd., 1944. 31 pp.) Though designed for advertising purposes, it is a useful outline for planners seeking an economic base for satellite towns. The proposed formula for converting wartime sites to fullest postwar use should be further explored in England [illegible] America.

Baron, Stanley, Editor. COUNTRY TOW[illegible] IN THE FUTURE ENGLAND. Introduction by [illegible] Eric Macfadyen. A report of the Conference [illegible] senting Local Authorities, Arts and Amen[illegible] Organizations, and Members of the Town and Co[illegible] Planning Association, October 23, 1943. (Lon[illegible] Faber and Faber, Ltd., 1944. 140 pp.) The Con[illegible] ence definitely favored reinvigorated rural comm[illegible] facilitate the proposals of the Barlow Report.

National Council of Social Service. [illegible] PERSAL: AN INQUIRY. (London: Hum[illegible] Milford, Oxford University Press, 1944. 9[illegible] Sociological discussion of the possibility of dispe[illegible] the surplus population of the major British ci[illegible] This study is confined to the removal of cle[illegible] and administrative personnel of companies w[illegible] could be dispersed completely or in part. W[illegible] thought out and a useful supplement to the Ba[illegible] Report.

Liepmann, Kate. THE JOURNEY TO WO[illegible] ITS SIGNIFICANCE TO INDUSTRIAL AND CO[illegible] MUNITY LIFE. (London: Kegan, Trench, Trub[illegible] and Co., Ltd., 1944. 199 pp. American edition, [illegible] York: Oxford University Press.) A social scien[illegible] analyses the implications of the journey to work [illegible] its significance for planners. Unlike some of [illegible] garden city enthusiasts, Dr. Liepmann feels [illegible] complex economic system requires a certain amo[illegible] of travel for employment purposes.



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THE LONDON PLANS

COUNTY OF LONDON PLAN. Prepared for [illegible] London County Council (L.C.C.) by Patrick Ab[illegible] crombie and J. H. Forshaw. (London: Macmil[illegible] and Co., Ltd., 1943. 188 pp.)

COMMENT ON THE L.C.C. PLAN:

Carter, E. J., and Goldfiner, Erno. [illegible] COUNTY OF LONDON PLAN. (London: Fou[illegible] Books, 1945. 80 pp.) An inexpensive, well il[illegible] trated summary of the L.C.C. plan. Unfortuna[illegible] it considers the excessive densities proposed [illegible] merit; otherwise, a good explanation.

Mumford, Lewis. THE PLAN OF LON[illegible] COUNTY. REBUILDING BRITAIN SERIES NO. 12. (Lon[illegible] Faber and Faber, Ltd., 1945. 40 pp.) Feels [illegible] Plan should have advocated a real policy of de[illegible] tralization and deplores the proposed density w[illegible] would result in a scheme in which it would [illegible] easier to raise a dog than a baby.

Purdom, C. B. HOW SHOULD WE REBU[illegible] LONDON? (London: J. M. Dent and Sons, L[illegible] 1945. 326 pp.) A sharp criticism of the L[illegible] plan, particularly of the proposed neighbou[illegible] units; his own plans, though, are vague.

GREATER LONDON PLAN 1944. A Report Prep[illegible] on Behalf of the Standing Conference on Lo[illegible] Regional Planning by Patrick Abercrombie at [illegible] request of the Minister of Town and Country P[illegible] ning. (London: H.M.S.O., 1945. 221 pp.)

RECONSTRUCTION IN THE CITY OF LOND[illegible] Report of the Improvements and Town Plan[illegible] Committee on Postwar Reconstruction in the City [illegible] London. Guildhall. (London: B. T. Batsford, L[illegible] 1944. 32 pp.)

LETTER FROM THE MINISTER OF TOWN [illegible] COUNTRY PLANNING, W. S. MORRISON, TO T[illegible] CORPORATION OF LONDON, WITH SOME NO[illegible] ON THE PLAN, July 2, 1945. (Reprinted in [illegible] JOURNAL OF THE TOWN PLANNING INSTITUTE, Septem[illegible] October, 1945.) "Mr. Morrison . . . does not ex[illegible] that the reconstructed City should be either [illegible] 'museum piece' or that it should be dominated [illegible] the desire to produce magnificent 'vistas' . . . He [illegible] however, convinced that the makers of the [illegible] should approach their task by asking, 'What ear[illegible] place should the centre of a world capital, with [illegible] ancient and glorious history and a thriving [illegible] growing modern life, be?' The main purpose, [illegible] ever, which has actuated the preparation of the [illegible] now before him appears . . . to be, 'How can w[illegible] of the major inconveniences of the prewar City [illegible] palliated consistently with the least possible di[illegible] in the existing layout and ownerships.'

"The Minister feels strongly . . . that the preparat[illegible] of an approved Plan has now become a matte[illegible] urgency . . . He therefore recommends . . . [illegible] they should appoint one of the leading town-plan[illegible] experts to prepare, within the next six month[illegible] new Reconstruction Plan for their consideration. [illegible] should place at his disposal all the available ma[illegible] . . . and other assistance which he may need.

None of these plans as yet furnish the last wor[illegible] how London should be rebuilt; they are too p[illegible] meal and do not complement each other sufficie[illegible] Of the three, the City Plan is the least imagin[illegible] and differs markedly from the two (and super[illegible] Abercrombie reports. Mumford's criticism of [illegible] L.C.C. Plan applies equally to all the plans s[illegible]

(Continued on page 116)

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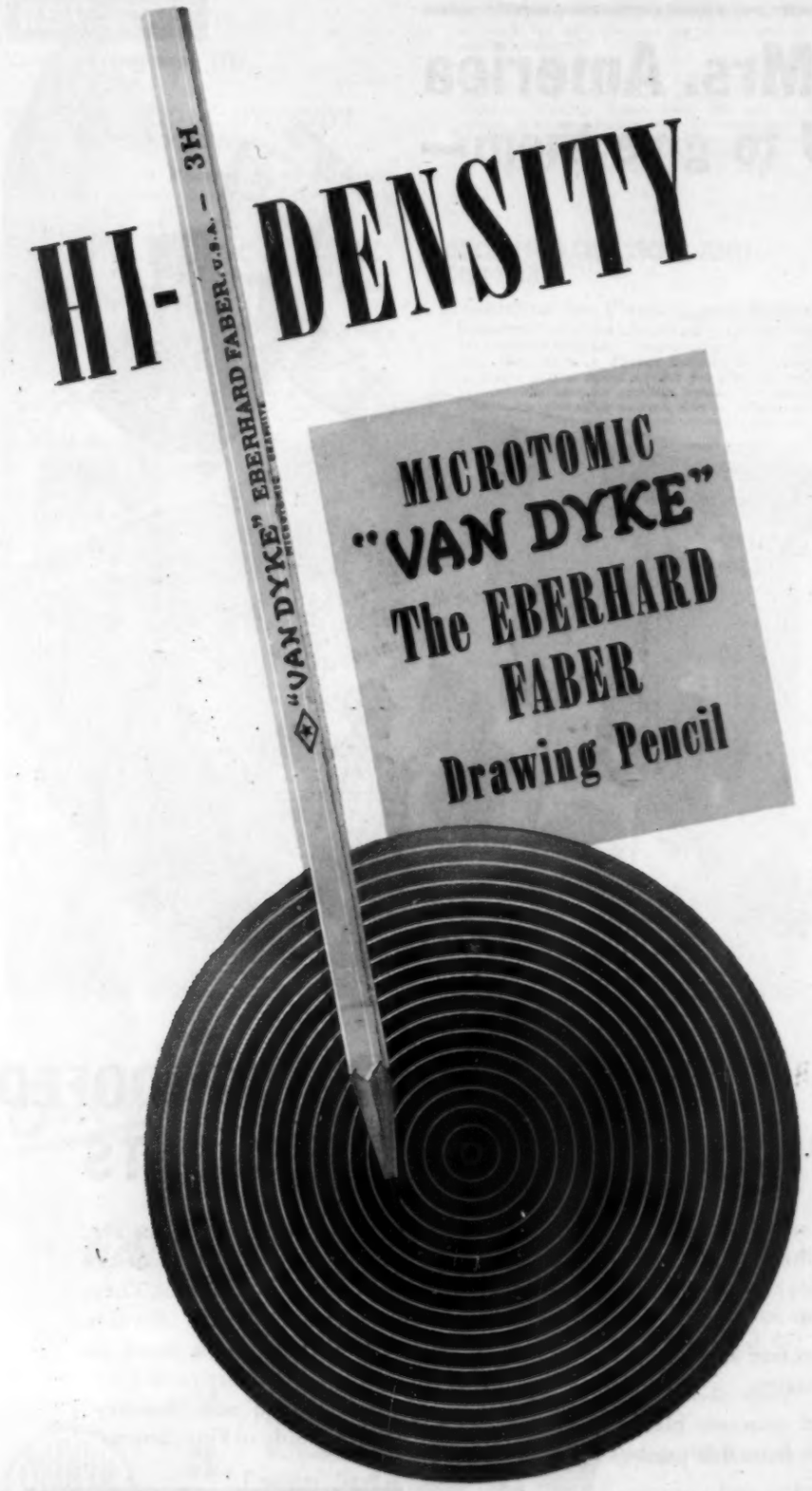

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REVIEWS

(Continued from page 114)

designed for London. He asks if ". . . a plan London—or any other British city—can pro without taking its place in a larger scheme of nati and regional development. . . . As a series of organized planning schemes, the report is admira What is lacking is not planning skill but somet that must precede it: urban statesmanship."

CITY AND REGIONAL PLANS

The plethora of material necessitates only a br of the major reports. Their quality varies, collectively the plans indicate keen public civic awareness and approval of local reconstruc problems.

Abercrombie, Patrick, Owens, J., a Mealand, H. A. A PLAN FOR BATH. (R 1945. 174 pp. Mimeo. This draft may be amen before publication.)

Thompson, F. L. S. MERSEYSIDE PLAN, (London: H.M.S.O., 1945. 73 pp.)

Watson, J. P., and Abercrombie, Patri A PLAN FOR PLYMOUTH. (Plymouth: Under Ltd., 1943. 147 pp.)

Other plans include: Bruce, J. M., FIRST PL NING REPORT FOR THE CITY OF GLASG Brooks, John J., THE MANCHESTER AND TRICT REGIONAL PLANNING PROPOSALS; vidge, W. R., PLANNING FOR WINDON; J C. H., Pierce, S. R., and Rowley, H. C., CITY NORWICH PLAN; Nichols, R., THE MANCHES CITY PLAN; Norwich Corporation, CITY OF N WICH PLAN; and Sheffield Corporation, SHEFFI REPLANNED.

PLANNING—FOR POPULAR CONSUMPTION

The Architectural Press (Londo

THE THREE PLANNING BOGIES: Laski, Harol WILL PLANNING RESTRICT FREEDOM? (39 Watkins, E. S., HOW WILL PLANNING AFF LAND OWNERSHIP? (35 pp.); Schumacher, L WHAT WILL PLANNING MEAN IN TERMS MONEY? (43 pp.). Excellent illustrations of a tain type of British publication all too ra America—cheap, concise, progressive, popular, written by top-notch experts. These supply for those who want to know the answers so they can take part in planning and not just to be planned."

PLANNING FOR RECONSTRUCTION. (Lo The Architectural Press, 1944. 98 pp.) A illustrated explanation of the reconstruction pro

British Broadcasting Company. HO FOR ALL. Broadcast Discussions in the Service of the B.B.C. (Worcester: The Wor Press, 1944. 89 pp.) The B.B.C. looks at Bri housing problem. Would this type of broadca as feasible under the American system of b casting?

Cooperative Permanent Building So ty. DESIGN FOR BRITAIN PAMPHLET SE (London: J. M. Dent and Sons, Ltd.) In the Sec two series, 37 pamphlets have been publishe various aspects of town and rural planning the home.

Fogarty, Michael P. MACHINERY OF T AND COUNTRY PLANNING. (Oxford: Ca Social Guild, 1944. 64 pp.) The Guild en town and country planning and encourage fullest public support of planning measures.

PLANNING BIBLIOGRAPHIES

British Information Services. A BI GRAPHY OF HOUSING AND TOWN AND COU PLANNING IN BRITAIN. (Revised April, 20 pp.) Covers the period from 1853-1945.

Bristol Public Library. REBUILDING TAIN: A SELECT LIST OF BOOKS ON AND COUNTRY PLANNING. (1943. 20 pp.

County Libraries Section, The Libr Association, London. REBUILDING TAIN. (May 1945. 12 pp.)

(Continued on page 118)

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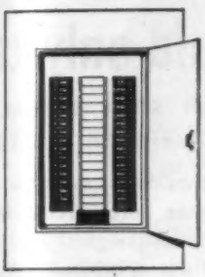
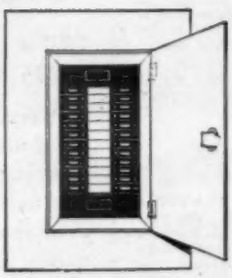
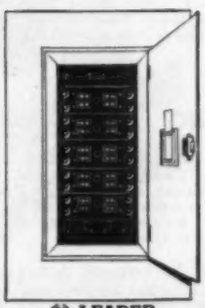


Ⓕ Type AC THERMAG Circuit Breaker

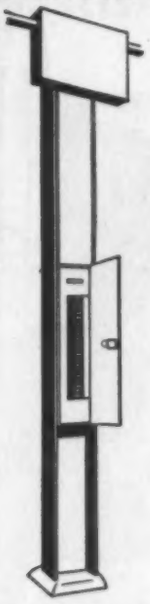


Ⓕ DUBLBRAK Type Circuit Breaker



Ⓕ LEADER Type LNT1P Fuse and Switch

Ⓕ DUST-TIGHT Circuit Breaker for Lighting or Power



Ⓕ COLUMN Type Circuit Breaker

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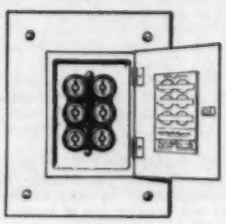
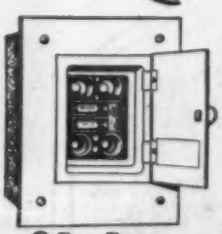
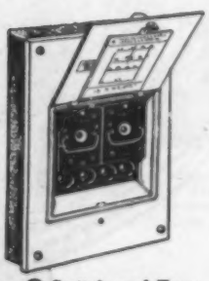
Ⓕ Type AC Circuit Breaker LOAD CENTER with all single poles



Ⓕ Type F B X Fuse Box



Ⓕ Fuse Type SERVICE EQUIP. with main switch



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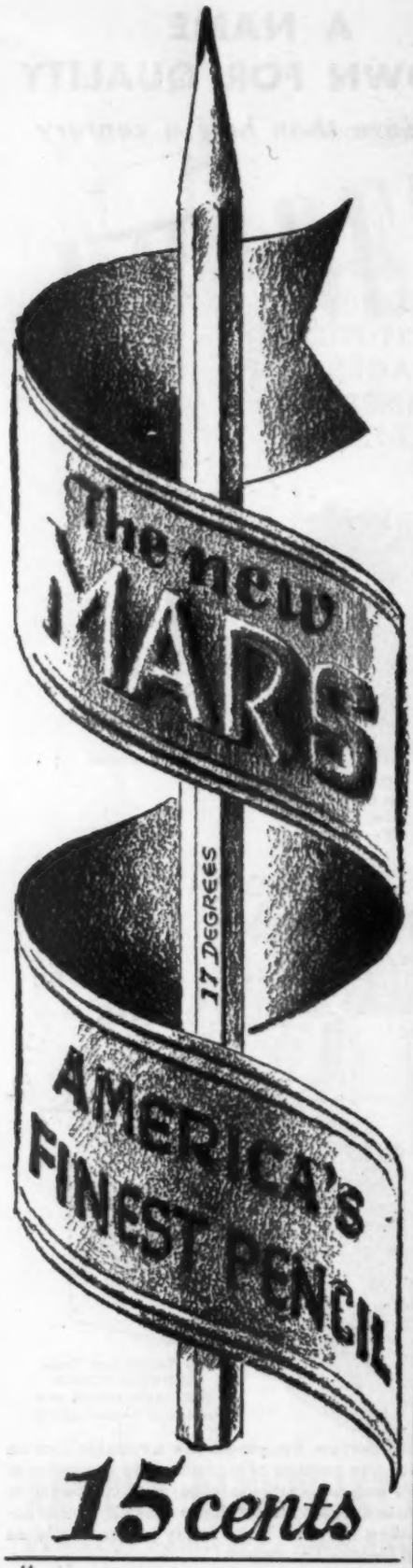

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REVIEWS

(Continued from page 116)

SOCIO-PLANNING

Fawcett, C. B. A RESIDENTIAL UNIT FOR TOWN AND COUNTRY PLANNING. (London: University of London Press, Ltd., 1944. 76 pp.) With the school as the dominating factor, social relationships are expressed by a minimum and maximum population for a community. The "vill," Dr. Fawcett's name for a residential unit, makes for an objective if somewhat arbitrary approach to town size.

Ministry of Education. COMMUNITY CENTRES. (London: H.M.S.O., 1945. 40 pp.) The local education authorities are charged with the provision of and organization for community centers, and advice as to their establishment and management is suggested by the Ministry. The impetus for these centers was the recognition that more productive use should be made of leisure time.

Pearse, Innes, and Crocker, Lucy. THE PECKHAM EXPERIMENT: A STUDY IN THE LIVING STRUCTURE OF SOCIETY. (London: George Allen and Unwin, Ltd., 1943. 333 pp.) A vivid description of a major social experiment in which a health center plays a positive role in the disorganized family life of Londoners. The center, a super-settlement house for the 'whole' family, is a pressing case for town rebuilding in "human scale."

HOUSING

Cole, G. D. H. BUILDING AND PLANNING. (London: Cassell and Co., Ltd., 1945. 286 pp.) Relates housing and planning to national economic policy; particular attention is paid to the building industry. Worthwhile reading for social scientists and physical planners.

Elsas, M. J. HOUSING BEFORE THE WAR AND AFTER. (London: Staples Press, Ltd., 1945. 95 pp. Second edition, enlarged.) The first edition was noted in Miss Bauer's article. This edition is more quantitative and attempts to ascertain housing needs and estimate total requirements.

Madge, John. THE REHOUSING OF BRITAIN. Foreword by Sir William Beveridge; TARGET FOR TOMORROW SERIES. (London: The Pilot Press, Ltd., 1945. 64 pp.) Introduces the public to Britain's housing problem and surveys the stand of the political parties and the Government; reviews housing progress abroad.

Ministry of Health. PRIVATE ENTERPRISE HOUSING REPORT. (London: H.M.S.O., 1944. 55 pp.) A realistic report by a subcommittee of the Central Housing Advisory Committee on the place of private enterprise in a housing program.

Ministry of Health. RURAL HOUSING. (London: H.M.S.O., 1944. 68 pp.) Endorses the Scott Committee's proposal for major improvement in rural shelter and houses designed for a 'rural' way of life.

Ministry of Information. HOUSING: THE MAGNITUDE OF THE PROBLEM. (British Information Services, 1945. 44 pp.) Factual survey of the planning and construction of houses for rehousing Britain's population.

Ministry of Reconstruction. HOUSING. (London: H.M.S.O., 1945. 8 pp.) The Government states its objectives, program, and organization for housing.

Ministry of Works, Ministry of Health. TEMPORARY ACCOMMODATION: MEMORANDUM FOR THE GUIDANCE OF LOCAL AUTHORITIES. (London: H.M.S.O., 1944. 32 pp. Issued also for Scotland by H.M.S.O. in Edinburgh.) Guides for local authorities in planning for and providing temporary shelter, with the caution that the temporary program should complement but not interfere with a permanent shelter plan.

HOUSING AND CONSTRUCTION STANDARDS—H.M.S.O. Ministry of Health. DESIGN OF DWELLINGS: REPORT OF THE DESIGN OF DWELLINGS SUBCOMMITTEE. (1944, 75 pp.) Standards for permanent construction and the layout of neighborhoods and communities to be used by public and private enterprise. General recommendations and detailed technical notes are included.

Ministry of Health, Ministry of Works. HOUSING MANUAL. (1944, 104 pp.); HOUSING MANUAL WITH TECHNICAL APPENDICES. (1944,

(Continued on page 120)

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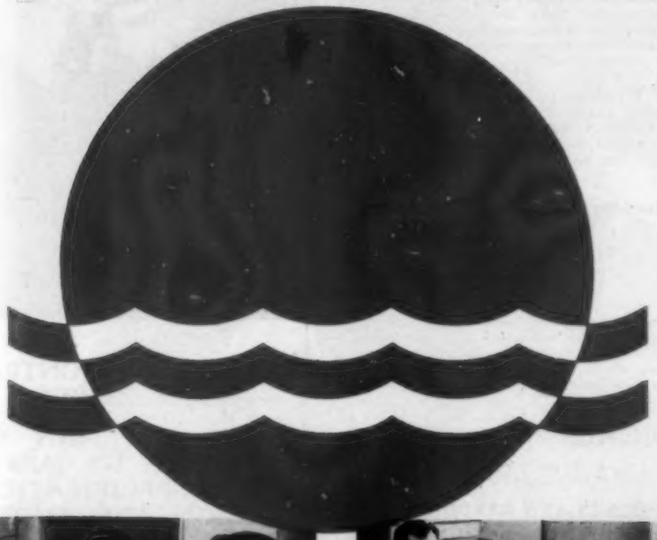

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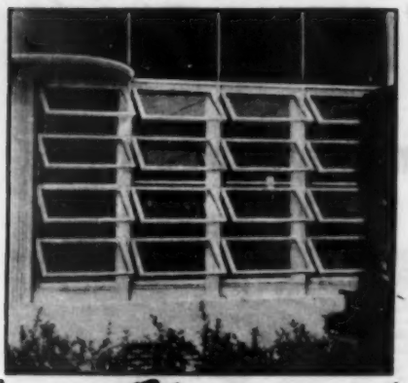

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Fort Lauderdale, Florida

Gate City
AWNING WINDOWS

REVIEWS

(Continued from page 118)

92 pp.) Guides for local authorities and architects on the design and construction of permanent housing. Technical appendices have suggested construction details and specifications.

Ministry of Works. POSTWAR BUILDING STUDIES SERIES. Recognition by the Ministry of Works of the paucity of existing knowledge about the construction industry resulted in the establishment of 22 Study Committees. These prepared a series of POSTWAR BUILDING STUDIES which deal with the problems of design, structure, and installations. Each committee represented all interests affected to secure the most authoritative report as well as to insure general acceptance of recommendations. The studies collectively are virtually an encyclopedia of the building and related industries.

Ministry of Works. THE USE OF STANDARDS IN BUILDING: FIRST PROGRESS REPORT OF THE STANDARDS COMMITTEE. (1944, 25 pp.) Recommendations to facilitate production and distribution of building materials by the use of standard fittings, etc.

Scottish Housing Advisory Committee. PLANNING OUR NEW HOMES: A REPORT ON THE DESIGN, PLANNING AND FURNISHING OF NEW HOUSES. (Edinburgh: 1944. 96 pp.) The majority report follows the "reasonable" improvement line—slightly more space, slightly better planning, close adherence to economy. The minority proposes more privacy, more individualism, and apparently less technical advance. The committee finally decided to continue standard British types and their proposals are likely to seem outmoded before the new houses are built.

PERIODICALS

Reviewed by MAUDE KEMPER RILEY

CANADIAN HOMES AND GARDENS
Dominion Square Bldg., Montreal, Canada
FEBRUARY 1946

Canada is ahead of us in ironing out printing difficulties. The February issue of *Canadian Homes and Gardens* arrived one month ahead of schedule with the announcement that it will remain ahead. Behind this, according to John Caulfield Smith, architect, is Canada's service to home builders of limited means. Other than a booklet entitled *Sketch Designs*, issued free by the National Housing Administration (from which may be ordered four sets of any one house plan with specifications for the price of $10), there is no pooled architect service; and this proposition includes, actually, no *service* for the erection or supervision of the building. Mr. Smith advocates that Canadian architects sponsor a plan similar to the Minnesota Architects Home Plan Institute, which is a pooled service of A.I.A. chapter members. This group is able to sell the home owner any amount of service, on a copyrighted design, for which he is willing to pay. Basic cost is $30 for plans and specifications, and supervision is contracted for with the individual architect.

THE ARCHITECTS' JOURNAL
45 The Avenue, Cheam, Surrey
London, England
NOVEMBER 22, 1945

Editorially, it is revealed that the building trade workers of England are demonstrating by token strikes their dissatisfaction with conditions which,

(Continued on page 122)

MEET YOUR CONTRACTOR —MR. JOE BROWN.

JOE'S THE MAN WHOSE JOB IT IS TO CARRY OUT YOUR SPECIFICATIONS OF DESIGN AND MATERIALS. He's the man who is on the roof when it is laid—he handles the materials—he clocks his labor cost —he checks the quality value of his work and the products he has used.

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LACLEDE STEEL
COMPANY
ARCADE BUILDING, ST. LOUIS, MO.

REVIEWS

(Continued from page 120)

during the war, caused no complaints. It seems that the wage rate is spottily controlled, so that when assigned to a site men may strike for better wages and/or bonuses under one employer or another. In years just past the Government imposed upon the industry conditions of work or welfare, and of bonus on output. Industry was occupied on Government jobs mainly. So will it be for the next five years, it is said, and this may be reason enough to continue Government supervision of disparities in wages which are causing the "marching feet" among workers in the building trades.

JANUARY 3, 1946

The first building of a planned fourteen by Mies van der Rohe, to be erected for the Armour Research Foundation as one of the tenants of a large educational group of buildings for the Illinois Institute of Technology, is illustrated in photographs. It is Mies van der Rohe's first design to be built in the U.S.A.

THE AMERICAN HOME
444 Madison Avenue, New York, N. Y.
JANUARY 1946

An article by Svend Reimer on remodeling vs. building is fully illustrated with examples of successful remodeling of old houses, thus rescuing an equally pro and con article from ineffectuality. Handsome indeed is the Antonin Raymond alteration of an old Frenchtown house into a spacious country place for Bronson Williams of New Jersey. Existing stone walls enhance the interior of the old structure, to which glass corner windows have been added; make cool the upper-story guest house extension over flagstone terrace and outside winding stair.

HOUSE BEAUTIFUL
572 Madison Ave., New York 22, N. Y.
JANUARY 1946

Liberally glazed houses in Washington, D. C., and in San Diego, California, are each built on narrow lots but use the device of fences (in the second case, louvred ones) which shut out view but admit breeze and sunlight. It is argued that privacy need not depend, when the leaning is towards glass walls, upon the protection of acreage or woodland. No matter how small the garden area, if it is free of intruding eyes, it may be counted part of the living area of the home. The first is the design of Roscoe Wood, a simple one-story, two-bedroom design; the second is by J. S. Deardorf, more luxurious in space, allowing for extensive guest accommodation, game room, study, private living room terrace, and upper deck—all on a 50′ x 210′ lot enclosed from passing view.

ARCHITECT AND ENGINEER
68 Post Street, San Francisco 4, Calif.
DECEMBER 1945

Compensating by its intramural facilities for travel time from San Francisco to reach it, is a new development to be called Apparel City, located on 32 acres of ground in the Islais Creek district, suburban lowland requiring the use of piling in erection. A three-street, cloverleaf design, the project will contain one million feet of floor area in its 100-foot-deep buildings, which will total a front footage of two miles of building. Mainly composed of one-story showrooms for the display and wholesale marketing of designing in the clothing industry, the City will have also centrally located four-story buildings with all facilities, such as convention halls, beauty shops, drug stores, cocktail lounges, corporation offices, game rooms and swimming pool—whatever it takes to make the industry function so far from downtown San Francisco. Rents will be low; uniform buildings will have distinctive facades for distinguishment of tenants. Architects J. Francis Ward and John S. Blooes are in charge of design. Construction was scheduled to begin in January.

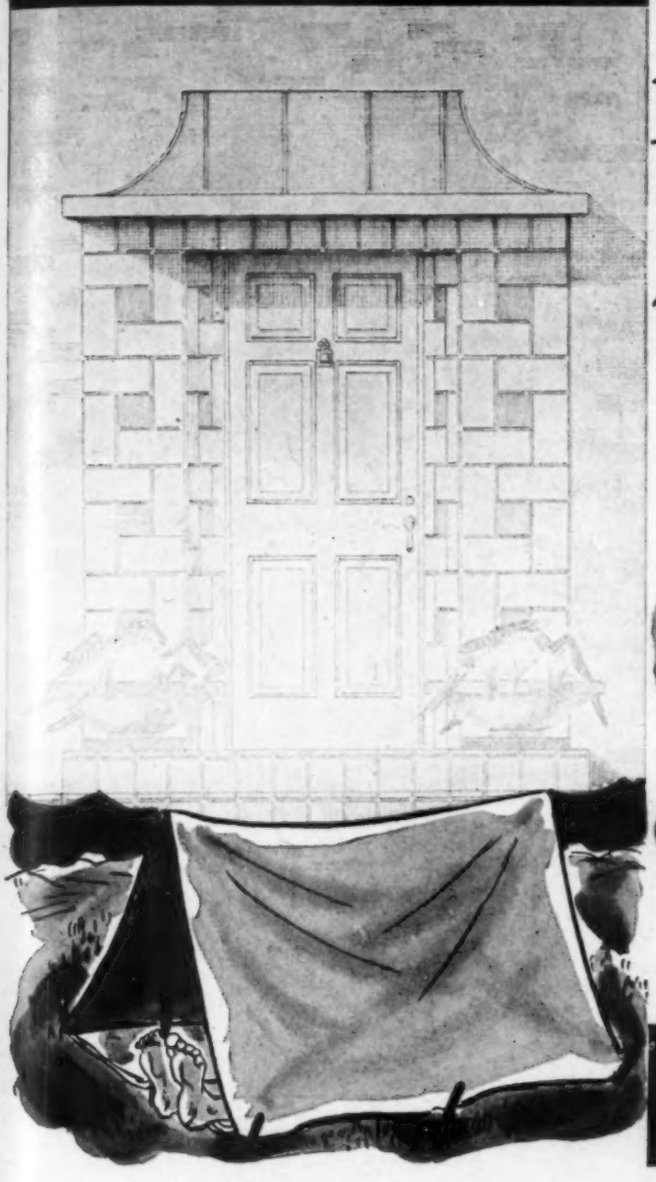
THE AMERICAN CITY
470 Fourth Avenue, New York 16, N. Y.
DECEMBER 1945

Howard C. Fischer, executive secretary of the Music Council of America, offers as a popular-style monument to the memory of a city's war dead, an outdoor music stadium, or band shell. Specifically, he sets forth Professor Henry L. Kamphoefner's design built in 1938 at Fort Dodge, Iowa, at a cost of $56,000; and a proposed shell, shown in miniature model, for another which would accommodate an orchestra of 3[illegible] pieces. Its cost is estimated at $12,000. An endowment fund yielding $5,000 a year is said to be adequate for support of an active civic orchestra for a small city. Mr. Fischer's Music Council has prepared a brochure, "Music Memorials Will Serve the Cause of Peace."

INTERIORS
11 East 44th Street, New York 17, N. Y.
DECEMBER 1945

Russel Wright, industrial designer, calls the fine arts artist "a mystery to practical men and a man to whom practical affairs are mysteries; a rather suspicious character to the rest of the solid citizenry." Too often the art school student is the product of an exalted and precious handling at home and comes a cropper when he hits the world. A revision of art school curricula to meet the facts of life, concerning application of talent to industry, would cure the hiatus which exists between the atmosphere of classroom and the occupation of the artist in any of the many fields of endeavor open to him. There is, he states, no point in feeling like a divinity when there is much work to be done in the world by a man of talent and discernment.

★ *What they dreamed about*



"He's happiest when he blacks out the battle-front and dreams of his postwar doorfront."

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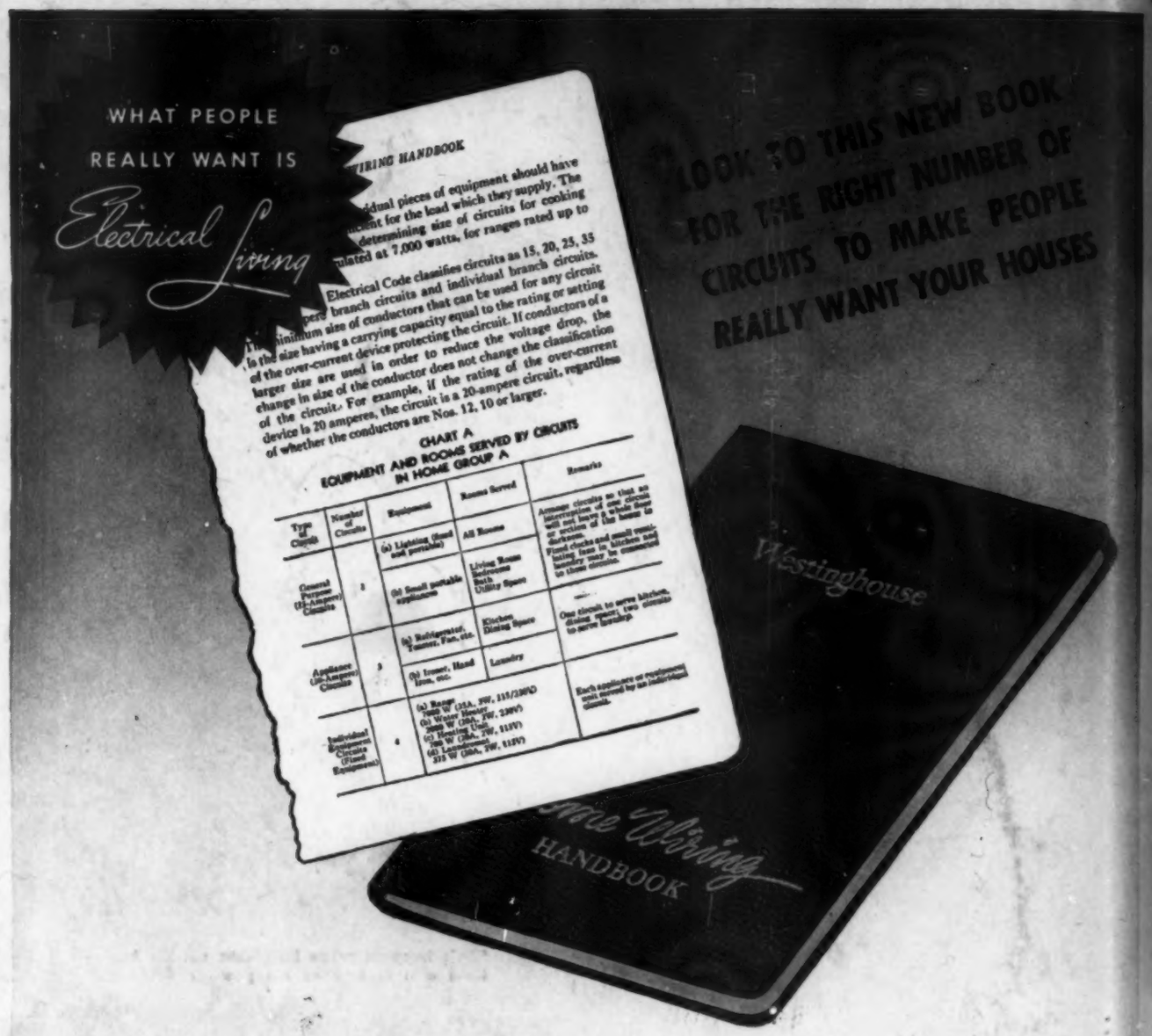

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